

## **Close Out Documents**

### **AP-77 – 4615 Fillmore St.**

Asbestos Abatement and Structural Demolition

#### **Prepared for:**

Kiewit Infrastructure Co.  
Attn: Jenn Bradtmueller  
160 Inverness Drive West, Suite 110  
Englewood CO 80112

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# 1. Closeout Letter

December 26, 2018

Kiewit Infrastructure Co.  
160 Inverness Drive West, Suite 110  
Englewood, CO 80112

**Re: SSCR AP-77 4615 Fillmore St.**

Dear Kiewit Infrastructure Co.

This letter is confirm that all the work associated with the asbestos abatement and demolition of the structure located at 4615 Fillmore St. Denver, CO 80216, also referred as parcel AP-77, is complete.

The scope of work included the removal of Regulated Building Materials (RMBs), asbestos abatement, demolition of a 1,255 square foot residential structure, demolition of a 453 square foot detached garage and the removal of the curb and driveway.

This document has been prepared to furnish you with key documents associated with this project for your records.

On behalf of the JKS Industries team, we would like to extend our appreciation to working with you on this project and look forward to working with you in the future.

Regards,



Jeffrey Knight,  
President

## 2. CDPHE Asbestos Abatement Permit

**Colorado Department of Public Health and Environment**  
Air Pollution Control Division – Indoor Environment Program – Asbestos/IAQ Unit  
4300 Cherry Creek Drive South, APCD-IE-B1  
Denver, Colorado 80246-1530  
Phone: 303-692-3100 – Fax: 303-782-0278  
E-mail: asbestos@state.co.us

## **ASBESTOS ABATEMENT PERMIT**

This permit is granted subject to Colorado Air Quality Control Commission Regulation No. 8, Part B, adopted December 21, 2007, and effective January 30, 2008, the Colorado Air Pollution Prevention and Control Act (25-7-101 or 25-7-501 et seq., C.R.S.) and the following provisions. It is only for the purpose of allowing asbestos abatement.

### **ADDITIONAL PERMIT PROVISIONS:**

By performing work under this permit the abatement contractor agrees that the Division may revoke or suspend this permit should the Division find that the contractor:

- has violated or has aided and abetted in the violation of 25-7-101 or 25-7-501 et seq., C.R.S. or Regulation No. 8, Part B, or an order of the Division or Commission,
- has failed to meet any permit and notification requirement or failed to correct any violations cited by the Division during any inspection within a reasonable period of time, as may be determined by the Division,
- has used misrepresentation or fraud in obtaining this permit, or,
- has committed any act or omission which does not meet generally accepted standards of the practice of asbestos abatement.

As a contractor, you may be subject to other licenses and permits, depending on the requirements of the county and municipality in which the work is being performed. The Colorado Department of Public Health and Environment, Air Pollution Control Division strongly suggests that you check with county and municipal authorities in order to determine any other local building/permitting requirements that must be met.

### **THE ORIGINAL PERMIT MUST BE POSTED ON SITE AT ALL TIMES.**

*Immediately notify the Asbestos/IAQ Unit of project modifications by fax (number above) or e-mail (address above) and the appropriate county health department by fax. Project modifications include changes in the scope of work or the scheduled work dates, etc.*

This asbestos abatement permit is valid beginning 10/8/2018 through 11:59 PM on 11/6/2018.

The actual scheduled work dates are from 10/8/2018 through 10/26/2018.

Approval issued on: 10/1/2018

Record number: 142027

**Notice Number: 18DE6500A**

Variance: None

Comments: None

For the location specified below:

**AP-77 residential  
Bedrooms, kitchen closet, & living room  
4615 Filmore St.  
Denver  
Denver County**

Fee paid: \$400.00

Check number: 5465

Project Supervisor:

**George W. Thomas**

Cerification No.: 17192

Project AMS:

**Logan Greenfield**

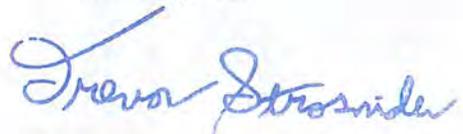
Cerification No.: 20715

Project Manager:

This permit has been issued to:

**JKS Industries, LLC  
747 Sheridan Blvd Unit 9A  
Lakewood, CO 80214**

Issued by: TS



# ASBESTOS ABATEMENT NOTIFICATION and PERMIT APPLICATION FORM

FEE MUST ACCOMPANY THIS FORM. INCOMPLETE APPLICATIONS WILL BE RETURNED.



**Colorado Department  
of Public Health  
and Environment**

Single Family Residential Dwelling (SFRD) > 50 LF or 32 SF or a 55-gal. drum, but ≤ 260 LF or 160 SF or a 55-gallon drum			Public and Commercial Building, School, and Single-Family Residential Dwelling: > 260 LF or 160 SF or a 55-gallon drum		
[ code 200 ] <input type="checkbox"/>	\$0	Courtesy Notice	[ code 100 ] <input type="checkbox"/>	\$0	Courtesy Notice
[ code 205 ] <input type="checkbox"/>	\$60	Non-Public Access Notice (Opt Out)	[ code 105 ] <input type="checkbox"/>	\$80	Non-Public Access Notice
[ code 210 ] <input type="checkbox"/>	\$60	Notice	[ code 110 ] <input type="checkbox"/>	\$80	Notice
[ code 230 ] <input type="checkbox"/>	\$180	30-Day Permit	[ code 130/232 ] <input checked="" type="checkbox"/>	\$400	30-Day P&C/SFRD Permit
[ code 290 ] <input type="checkbox"/>	\$300	90-Day Permit	[ code 190/292 ] <input type="checkbox"/>	\$800	90-Day P&C/SFRD Permit
[ code 265 ] <input type="checkbox"/>	\$420	365-Day Permit	[ code 165/267 ] <input type="checkbox"/>	\$1200	365-Day P&C/SFRD Permit
[ code 180/280 ] <input type="checkbox"/>	\$55	Notice or Permit Transfer	[ code 177 ] <input type="checkbox"/>	\$80	Phase _____ of Multiple Phase Permit #

Submit form to:  
Permit Coordinator  
Colorado Dept. of Public Health  
and Environment  
APCD-IE-B1  
4300 Cherry Creek Drive South  
Denver, CO 80246-1530  
Phone: 303-692-3100  
Fax: 303-782-0278  
asbestos@state.co.us

Abatement Contractor			Abatement Site			Building Owner		
Company Name JKS Industries			Building Name AP-77 Residential			Owner Name CDOT		
Street Address 747 Sheridan Blvd. Unit 9A			Specify location in the building where work will take place (e.g. floor, room, wing, etc.) Bedrooms, Kitchen Closet and Living Room			Contact Athony DaVito		
City Lakewood	State CO	Zip code 80214	Street Address 4615 Filmore Street			Street Address 2000 S. Holly St.		
Telephone # (303) 238-0207	Fax # (303) 238-0452		City Denver	County Denver	Zip code 80216	City Denver	State CO	Zip code 80222
Project Supervisor George Thomas		CO. Cert # 17192	Building Contact Doug Messier		Cell Phone # (817) 320-6749	Telephone # (303) 512-5900		Fax # ( )
Project Personnel			Project Information			Disposal Site		
CO Project Mgr. Name Not Required			Start Date 10/08/2018 ✓	End Date 10/26/2018 ✓		Landfill Name Denver Arapahoe Disposall		
Cell Phone # ( )	CO Project Designer #		Start Time 6:30am AM	End Time AM 5:00 PM		Street Address 3500 South Gun Club Road		
CO Project Designer Name			Check the day(s) of operation: Su M Tu W Th F Sa <input type="checkbox"/> <input checked="" type="checkbox"/>			City Aurora	State CO	Zip code 80018
Cell Phone # ( )	CO Project Designer #		Emergency? Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	Type of ACM: TSI, Texture, VAT, etc. TDW		CDPHE Use Only		
Consulting Firm Name All Phase Consulting, Inc.		Registration # 15979	Linear Feet / Type 1	Square Feet / Type 2382 SF of Textured drywall ✓	55 gal. Drums	Postmark or Delivery date 9/20/18	Approved by: <i>[Signature]</i>	
A.M.S. Name Logan Greenfield						Form of Payment & # ck 5465 \$400	PM req'd? Y <input checked="" type="checkbox"/> N <input type="checkbox"/> W <input type="checkbox"/>	
Cell Phone # (719) 545-0375	CO A.M.S. Cert # 20715					Permit # 1877-6500A	Record # 140027	Date Issued:

Please describe below the work practices and procedures to be employed in conducting the abatement of asbestos. **BE SPECIFIC.** Indicate type(s) of ACM to be abated (e.g. VAT, ceiling tile, TSI, etc.). Use another page if necessary.

This project will consist in removal and disposal of 2,382 SF of textured drywall with in a full containmnet. The friable materials will be removed using small hand tools (carpenters hammer, cats claw, crow bar and chisels) the material will be kept wet (1500 psi airless sprayer with amended water) The full containment will employ negative air pressure greater than --0.02cw, a fully functional decon, 1'x1' view port and two chamber waste loadout. All work will be in accordance with Colorado Regulation #8 Part B. The full conatinment will be inspected and cleared by a State Certified AMS. ✓

**APPROVED**  
DATE 9/21/18 CDPHE *[Signature]*

RECEIVED  
**SEP 20 2018**  
APCD  
Permit Stationary  
Rev 01/30/2008

### 3. CDPHE Demolition Permit

**Colorado Department of Public Health and Environment**  
Air Pollution Control Division – Indoor Environment Program – Asbestos/IAQ Air Unit  
4300 Cherry Creek Drive South, APCD-IE-B1  
Denver, Colorado 80246-1530  
Phone: 303-692-3100 – Fax: 303-782-0278  
E-mail: asbestos@state.co.us

## DEMOLITION APPROVAL NOTICE

This approval notice is granted subject to Colorado Air Quality Control Commission Regulation No. 8, Part B, adopted December 21, 2007, and effective January 30, 2008 and the Colorado Air Pollution Prevention and Control Act C.R.S. (25-7-101 and 25-7-501 et seq). This notice signifies that the structure was inspected for asbestos, luminous exit signs (containing radioactive material), and Ozone-Depleting Refrigerants and the demolition contractor has properly notified the Colorado Department of Public Health and Environment pursuant to Regulation No. 8, Part B.

As a contractor, you may be subject to other demolition licenses and permits, depending on the requirements of the county and municipality in which the work is being performed. The Colorado Department of Public Health and Environment, Air Pollution Control Division, strongly suggests that you check with county and municipal authorities in order to determine any other local building/permitting requirements that must be met.

**Please note that certain asbestos-containing materials (ACM) may remain in the structure during demolition. Therefore, any demolition debris left behind after the completion of post-demolition site cleanup may constitute a "reason to know of asbestos-contaminated soil" at the site, subject to the requirements of Section 5.5 of the Solid Waste Regulations (6 CCR 1007-2, Part 1).**

**THE ORIGINAL APPROVAL NOTICE MUST BE POSTED ON SITE AT ALL TIMES.**

*Immediately notify the Asbestos/IAQ Unit of project modifications by fax (number above) or e-mail (address above) and the appropriate county health department by fax. Project modifications include changes in the scope of work or the scheduled work dates, etc.*

This demolition approval notice is valid beginning 11/14/2018.

The actual scheduled work dates are from 11/14/2018 through 12/14/2018.

Approval issued on: 11/15/2018

Record number: 143416

**Notice Number: 18DE7774D**

For the location specified below:

**AP-77 Garage**

**4615 Fillmore St.**

**Denver**

**Denver County**

Fee Paid: \$55.00

Check number: 5652

Asbestos Building Inspector:

**Richard L. Ralston**

Cerification No.: 4261

Inspection Date: 11/08/2018

This notice has been issued to:

**JKS Industries, Inc.**

**747 Sheridan Blvd. Unit 9A**

**Lakewood, CO 80214**

Issued by:





# DEMOLITION NOTIFICATION APPLICATION FORM

APPLICATION FEE MUST ACCOMPANY THIS FORM  
INCOMPLETE APPLICATIONS WILL BE RETURNED  
(Notice will be mailed to the demolition contractor unless specified otherwise)

Colorado Department  
of Public Health  
and Environment

Fee: \$50 + \$5 per 1000 ft<sup>2</sup> of area to be demolished = \$ 55.00  
(See instruction #1 on reverse side)

Submit form to:  
Permit Coordinator  
Colorado Dept. of Public  
Health and Environment  
APCD-IE-B1  
4300 Cherry Creek Drive  
South  
Denver, CO 80246-1530  
Phone: 303-692-3100  
Fax: 303-782-0278  
Asbestos@state.co.us

<b>Demolition Contractor</b>	Company Name: <b>JKS Industries</b>		Building Name: <b>AP-77 Garage</b>		
	Street: <b>747 Sheridan Blvd. #9A</b>		Square footage of footprint of facility or portion of facility to be demolished <b>453</b>		
	City: <b>Lakewood</b>	State: <b>CO</b>	Zip Code: <b>80214</b>	Street: <b>4615 Fillmore St.</b>	
	Telephone # <b>(303) 238-0207</b>	Fax # <b>(303) 238-0452</b>	City: <b>Denver</b>		County: <b>Denver</b>
	Project Manager: <b>Jeffrey Knight</b>		Cell Phone # <b>(720) 402-4410</b>	Zip Code: <b>80216</b>	
	I certify that the Certified Asbestos Building Inspector has informed me about any remaining asbestos-containing materials in the facility to be demolished.		Proposed Start Date: <b>11/14/18</b>		
	Signature:		Proposed Completion Date: <b>12/14/18</b>		
Print Name: <b>Jeffrey Knight</b>		Method/Mean of Demolition: <input checked="" type="checkbox"/> Wrecking <input type="checkbox"/> Burning <sup>†</sup> <input type="checkbox"/> Implosion <input type="checkbox"/> Moving <input type="checkbox"/> Other, specify:			
Landfill Receiving Building Debris: <b>Denver Arapahoe Disposal Site</b>		† Burning requires additional authorization – Please call (303) 692-3100 and ask to speak to the Open Burning Permit Coordinator			
<b>Asbestos Removal Contractor</b>	General Abatement Contractor (GAC) <b>N/A</b>		Owner's Name: <b>CDOT</b>		
	CDPHE Asbestos Permit #	Total Quantity of Asbestos Removed	Street: <b>2000 S Holly St.</b>		
	Date Removal Completed	Telephone #	City: <b>Denver</b>		
	Type(s) of Asbestos-Containing Material Removed:		State: <b>CO</b>	Zip Code: <b>80222</b>	
<b>Certified Asbestos Inspector</b>	With my signature below, I certify that I possess current AHERA accreditation and state of Colorado certification as an Asbestos Building Inspector. I also certify that I have thoroughly inspected the facility to be demolished, as listed in the Demolition Site block above, sampled all suspect materials, had all samples analyzed for the presence of asbestos by a NVLAP-accredited laboratory, and have determined that no Regulated ACM exists anywhere in the facility.* I also certify that I have informed the owner/operator of the facility or the demolition contractor that any asbestos-containing material allowed to stay in the facility must remain non-friable during demolition. Specify type(s) of ACM remaining, below: (check appropriate box(es)):				
	<input type="checkbox"/> Vinyl asbestos floor tile (VAT) <input type="checkbox"/> VAT mastic <input type="checkbox"/> Tar/asphalt impregnated roofing <input type="checkbox"/> Asphaltic pipe coatings <input type="checkbox"/> Spray-applied tar coatings <input type="checkbox"/> Caulking <input type="checkbox"/> Glazing <input type="checkbox"/> Other, specify:				
	Signature: (In Blue Ink) 		Printed Name: <b>Richard Ralston</b>		
	Date of Final Inspection <b>11/8/2018</b>	CO Cert # <b>04261</b>	Expiration Date <b>MAY 12-2019</b>	Telephone # <b>(719) 545-0375</b>	
	Cell Phone # <b>( ) ( )</b>				
<b>Building Owner or Contractor</b>	I verify that all refrigerants from air conditioning/refrigeration appliances have been properly recovered in accordance with AQCC Regulation No. 15 (for information on CFC requirements call 692-3100). I further verify that all luminous exit signs (containing radioactive material) have been disposed of in accordance with 6 CCR 1007-1 subpart 3.6.4.3 (for information on luminous exit sign requirements call 303-692-3320).				
	CHECK THE APPROPRIATE BOX:				
	<input type="checkbox"/> Building Owner	<input checked="" type="checkbox"/> Contractor	<input type="checkbox"/> Other	Date: <b>11/13/18</b>	
Signature:		Print Name: <b>JEFFREY KNIGHT</b>			
<b>THIS BOX IS FOR CDPHE USE ONLY:</b>					
Postmark or Hand Delivery Date: <b>11/9/18</b>		Approved By:		Code: <input checked="" type="checkbox"/> initial-310 <input type="checkbox"/> transfer-380	
Form of Payment & #: <b>check #5052 - \$55</b>		Permit #: <b>1887077740</b>	Record #: <b>43416</b>	Date Issued:	

\* Regulated asbestos-containing materials means (a) friable asbestos-containing material, (b) Category I nonfriable ACM that has become friable, (c) Category I nonfriable ACM that will be or has been subjected to sanding, grinding, cutting, or abrading or (d) Category II nonfriable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations regulated by this regulation. Note: Asbestos-containing sheet vinyl and linoleum must be properly abated/removed prior to demolition.

**APPROVED**  
DATE **11/13/18** CDPHE:

**Colorado Department of Public Health and Environment**  
Air Pollution Control Division – Indoor Environment Program – Asbestos/IAQ Air Unit  
4300 Cherry Creek Drive South, APCD-IE-B1  
Denver, Colorado 80246-1530  
Phone: 303-692-3100 – Fax: 303-782-0278  
E-mail: asbestos@state.co.us

## DEMOLITION APPROVAL NOTICE

This approval notice is granted subject to Colorado Air Quality Control Commission Regulation No. 8, Part B, adopted December 21, 2007, and effective January 30, 2008 and the Colorado Air Pollution Prevention and Control Act C.R.S. (25-7-101 and 25-7-501 et seq). This notice signifies that the structure was inspected for asbestos, luminous exit signs (containing radioactive material), and Ozone-Depleting Refrigerants and the demolition contractor has properly notified the Colorado Department of Public Health and Environment pursuant to Regulation No. 8, Part B.

As a contractor, you may be subject to other demolition licenses and permits, depending on the requirements of the county and municipality in which the work is being performed. The Colorado Department of Public Health and Environment, Air Pollution Control Division, strongly suggests that you check with county and municipal authorities in order to determine any other local building/permitting requirements that must be met.

**Please note that certain asbestos-containing materials (ACM) may remain in the structure during demolition. Therefore, any demolition debris left behind after the completion of post-demolition site cleanup may constitute a "reason to know of asbestos-contaminated soil" at the site, subject to the requirements of Section 5.5 of the Solid Waste Regulations (6 CCR 1007-2, Part 1).**

**THE ORIGINAL APPROVAL NOTICE MUST BE POSTED ON SITE AT ALL TIMES.**

*Immediately notify the Asbestos/IAQ Unit of project modifications by fax (number above) or e-mail (address above) and the appropriate county health department by fax. Project modifications include changes in the scope of work or the scheduled work dates, etc.*

This demolition approval notice is valid beginning 11/14/2018.

The actual scheduled work dates are from 11/14/2018 through 12/14/2018.

Approval issued on: 11/15/2018

Record number: 143415

**Notice Number: 18DE7773D**

For the location specified below:

**AP-77 Residential**

**4615 Fillmore St.**

**Denver**

**Denver County**

Fee Paid: \$60.00

Check number: 5652

Asbestos Building Inspector:

**Richard L. Ralston**

Cerification No.: 4261

Inspection Date: 11/08/2018

This notice has been issued to:

**JKS Industries, Inc.**

**747 Sheridan Blvd. Unit 9A**

**Lakewood, CO 80214**

Issued by





# DEMOLITION NOTIFICATION APPLICATION FORM

APPLICATION FEE MUST ACCOMPANY THIS FORM  
INCOMPLETE APPLICATIONS WILL BE RETURNED

Submit form to:  
Permit Coordinator  
Colorado Dept. of Public  
Health and Environment  
APCD-IE-B1  
4300 Cherry Creek Drive  
South  
Denver, CO 80246-1530  
Phone: 303-692-3100  
Fax: 303-782-0278  
Asbestos@state.co.us

Colorado Department  
of Public Health  
and Environment

(Notice will be mailed to the demolition contractor unless specified otherwise)

NOV - 9 2018  
CD

Fee: \$50 + \$5 per 1000 ft<sup>2</sup> of area to be demolished = \$ 60.00  
(See instruction #1 on reverse side)

<b>Demolition Contractor</b>	Company Name: <p style="text-align: center;">JKS Industries</p>			Building Name: <p style="text-align: center;">AP-77 Residential</p>		
	Street: <p style="text-align: center;">747 Sheridan Blvd. #9A</p>			Square footage of footprint of facility or portion of facility to be demolished <p style="text-align: center;">1255</p>		
	City: <p style="text-align: center;">Lakewood</p>		State: <p style="text-align: center;">CO</p>	Zip Code: <p style="text-align: center;">80214</p>		Street: <p style="text-align: center;">4615 Fillmore St.</p>
	Telephone # (303) 238-0207		Fax # (303) 238-0452		City: <p style="text-align: center;">Denver</p>	
	Project Manager: <p style="text-align: center;">Jeffrey Knight</p>		Cell Phone # (720) 402-4410		County: <p style="text-align: center;">Denver</p>	
	I certify that the Certified Asbestos Building Inspector has informed me about any remaining asbestos-containing materials in the facility to be demolished.				Zip Code: <p style="text-align: center;">80216</p>	
	Signature:		Print Name: <p style="text-align: center;">Jeffrey Knight</p>		Proposed Start Date: <p style="text-align: center;">11/14/18</p>	
	Landfill Receiving Building Debris: <p style="text-align: center;">Denver Arapahoe Disposal Site</p>				Proposed Completion Date: <p style="text-align: center;">12/14/18</p>	

<b>Asbestos Removal Contractor</b>	General Abatement Contractor (GAC) <p style="text-align: center;">JKS Industries</p>			Owner's Name: <p style="text-align: center;">CDOT</p>		
	CDPHE Asbestos Permit # <p style="text-align: center;">18DE6500A</p>		Total Quantity of Asbestos Removed <p style="text-align: center;">2382 SF</p>		Street: <p style="text-align: center;">2000 S Holly St.</p>	
	Date Removal Completed <p style="text-align: center;">11/2/2018</p>		Telephone # (303) 238-0207		City: <p style="text-align: center;">Denver</p>	
	Type(s) of Asbestos-Containing Material Removed: <p style="text-align: center;">2382 SF TDW</p>				State: <p style="text-align: center;">CO</p>	

<b>Building Owner</b>	Contact's Name: <p style="text-align: center;">Anthony DaVito</p>			Telephone # (303) 512-5900		
	City: <p style="text-align: center;">Denver</p>			State: <p style="text-align: center;">CO</p>		Zip Code: <p style="text-align: center;">80222</p>
	Street: <p style="text-align: center;">2000 S Holly St.</p>			City: <p style="text-align: center;">Denver</p>		
	Owner's Name: <p style="text-align: center;">CDOT</p>			State: <p style="text-align: center;">CO</p>		

With my signature below, I certify that I possess current AHERA accreditation and state of Colorado certification as an Asbestos Building Inspector. I also certify that I have thoroughly inspected the facility to be demolished, as listed in the Demolition Site block above, sampled all suspect materials, had all samples analyzed for the presence of asbestos by a NVLAP-accredited laboratory, and have determined that no Regulated ACM exists anywhere in the facility.\* I also certify that I have informed the owner/operator of the facility or the demolition contractor that any asbestos-containing material allowed to stay in the facility must remain non-friable during demolition. Specify type(s) of ACM remaining, below: **(check appropriate box(es))**:

Vinyl asbestos floor tile (VAT)  
 VAT mastic  
 Tar/asphalt impregnated roofing  
 Asphaltic pipe coatings  
 Spray-applied tar coatings  
 Caulking  
 Glazing  
 Other, specify:

Signature: (In Blue Ink)      Printed Name: 

Richard Ralston

Date of Final Inspection <p style="text-align: center;">11/2/2018</p>	CO Cert # <p style="text-align: center;">4201</p>	Expiration Date <p style="text-align: center;">12-7-2019</p>	Telephone # <p style="text-align: center;">(719) 545-0375</p>	Cell Phone # <p style="text-align: center;">( )</p>
--	--	---	--	--

I verify that all refrigerants from air conditioning/refrigeration appliances have been properly recovered in accordance with AQCC Regulation No. 15 (for information on CFC requirements call 692-3100). I further verify that all luminous exit signs (containing radioactive material) have been disposed of in accordance with 6 CCR 1007-1 subpart 3.6.4.3 (for information on luminous exit sign requirements call 303-692-3320).

CHECK THE APPROPRIATE BOX:

Building Owner  
 Contractor  
 Other

Signature:      Date: 

11/9/18

Print Name: 

JEFFREY KNIGHT

**THIS BOX IS FOR CDPHE USE ONLY:**

Postmark or Hand Delivery Date: <p style="text-align: center;">11/9/18</p>	Approved By: <p style="text-align: center;">SEK</p>	Code: <input checked="" type="checkbox"/> initial-310 <input type="checkbox"/> transfer-380
Form of Payment & #: <p style="text-align: center;">check # 5652 - \$60</p>	Permit #: <p style="text-align: center;">RD0773D</p>	Record #: <p style="text-align: center;">14315</p> Date Issued:

\* Regulated asbestos-containing materials means (a) friable asbestos-containing material, (b) Category I nonfriable ACM that has become friable, (c) Category I nonfriable ACM that will be or has been subjected to sanding, grinding, cutting, or abrading or (d) Category II nonfriable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations regulated by this regulation. Note: Asbestos-containing sheet vinyl and linoleum must be properly abated/removed prior to demolition.

APPROVED

DATE 11/3/18 CDPHE

## 4. JKS Asbestos Certifications



Colorado Department  
of Public Health  
and Environment

## General Abatement Contractor

This certifies that

**JKS Industries, LLC**

**GAC No.: 18531**

has met the certification requirements of 25-7-507, C.R.S. and Air Quality Control Commission Regulation No. 8, Part B, and is hereby authorized to perform asbestos abatement activities in the state of Colorado.

**Issued: July 18, 2018**

**Expires: July 18, 2019**

  
Annette Baselo  
Authorized APCD Representative

**SEAL**

## 5. JKS Workers Asbestos Certifications

Colorado Department  
of Public Health and  
Environment



Supervisor

Asbestos Certification

George W.  
Thomas

Expires: 10/25/2018    Cert. #: 17192  
Date Issued: 10/25/2017

# INTERNATIONAL

Environmental and Safety Training LLC  
720 Billings Street Unit F  
Aurora, Colorado 80011  
Phone # (720) 859-3134  
Fax # (720) 859-0660



*CERTIFIES THAT*

**GEORGE W. THOMAS**

Has successfully completed  
The **EPA- APPROVED AHERA ANNUAL ASBESTOS REFRESHER**  
**COURSE** for **CONTRACTOR/SUPERVISOR**  
And passed the requirements examination in that discipline

This course is **EPA-Approved** under Section 206 of the  
**Toxic Substance Control Act (TSCA)**

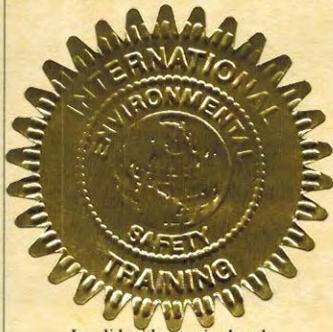
Course Date 10/06/2018

No. Hours 8

Certificate No. CO100618-04ASR

Expires 10/06/2019

This course meets the  
requirements of  
AQCC Reg. #8 Part B



Invalid without raised seal

Training Director

Midtown Occupational Health Services  
2490 W. 26<sup>th</sup> Ave. Ste. 300-A Denver, CO 80211  
Phone: (303) 831-9393 Fax: (303) 831-6335  
OSHA Asbestos Certification

Applicants Name George Thomas

The above individual was seen by me on 02-06-2018 in accordance to 29 CFR 1926.1101(Asbestos Certification) and 29CFR1910.134 (Respirator Certification). The following was performed:

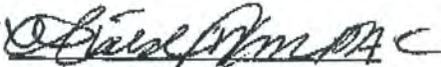
1.  Completion and review of the standardized medical questionnaire and work history with special emphasis directed to the pulmonary, cardiovascular, and gastrointestinal systems per Appendix D in 1926.1101
2.  Reviewed the employer's description of this individual's duties as they relate to asbestos exposure, the anticipated exposure level, and the personal protective and respiratory equipment to be utilized by this individual.
3.  Review of information from previous medical examinations, if available.
4.  A physical examination with emphasis upon the pulmonary, cardiovascular, and gastrointestinal systems, including a pulmonary function test of forced vital capacity (FVC) and forced expiratory volume at one second (FEV-1).
5.  Determined that a chest roentgenogram was  was not  required as part of this examination. (note: according to CFR 1926.1101 (M)(2)(ii)(C) it is at the discretion of the physician whether or not a chest X-ray is required)
6.  Reviewed OSHA's Medical Evaluation Questionnaire in Appendix C Part A Section 2 in accordance with 29CFR 1910.134 and have determined that this individual may  may not  use a respiratory device while performing his/her required duties.
7.  The employee has been instructed to report any difficulties in using the respirators or any change of physical status to their supervisor or physician.
8.  In accordance with OSHA requirements, I have fully explained the results of the medical examination and laboratory tests to the above named patient.
9.  In accordance with OSHA I have informed this individual of the health risks involved with smoking, of the synergistic relationship between cigarette smoking and asbestos exposure in producing lung cancer, and that cessation of smoking will reduce the risk of lung cancer.

**Midtown Occupational Health Services**  
**2490 W. 26<sup>th</sup> Ave. Ste. 300-A Denver, CO 80211**  
**Phone: (303) 831-9393 Fax: (303) 831-6335**  
**OSHA Asbestos Certification**

X There is no detected medical condition which would place this employee at an increased risk of material health impairment from exposure to asbestos, and there are no recommended limitations on the employee concerning the use of personal protective equipment or respirator.

\_\_\_\_\_ There is a detected medical condition(s) which places this employee at an increased risk. See comments below for limitations:

Comments/ Limitations \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

  
 Examining Provider

02/06/18  
 Date

Richard Kraus M.S., PA.-C  
 Midtown Occupational  
 Health Services, P.C.  
 2490 W. 26th Ave., Bldg. A, Suite 300  
 Denver, CO 80211  
 303-831-9393

### Respirator Fit Test

I, GEORGE THOMAS acknowledge that I have been fit tested and trained for the proper use and care of my respirator. I have read and understand JKS's written respiratory program manual.

Date of Fit Test: 5 7 18 Fit Test Conductor: Ruben Domingo

**Respirator Information**

- 1. Manufacturer: North
- 2. Model: 7700M
- 3. Size (Circle one):      SMALL          MEDIUM      LARGE
- 4. Approval Number: TC-84A-0592

Irritant smoke used (Circle one)?      YES          NO

Please initial the following as each test is completed:

- Breathe normally through the respirator
- Breathe deeply through the respirator. Be certain that your breaths are deep and regular
- Turn your head from one side to the other to the fullest extent about every second without bumping the respirator on your shoulders. Ensure that your movement is complete. Inhale on each side.
- Nod your head up and down to the fullest extent about every second without bumping the respirator on your chest. Ensure that your movement is complete and can be completed quickly. Inhale when you are facing up.
- Do several jumping jacks to ensure that the respirator does not come loose from your face.
- Move your mouth to its fullest extent; for example, yawn, move your jaw around, etc. Ensure that you can move your mouth as necessary without compromising the fit of the respirator.
- Read the Rainbow Passage

When the sunlight strikes raindrops in the air, they act like a prism and form a rainbow. A rainbow is a division of white light into many beautiful colors. These take the shape of a long round arch with its path high above and its two ends apparently beyond the horizon. There is, according to legend, a boiling pot of gold at one end. People look, but no one ever finds it. When a man looks for something beyond his reach his friends say he is looking for the pot of gold at the end of the rainbow.

Employee Signature: [Signature]

Date: 5.7.18

Fit Test Conductor Signature: [Signature]

Date: 5/07/18

Colorado Department  
of Public Health and  
Environment



Worker

Asbestos Certification

Alex Manuel  
Martinez-Coa

Expires: 6/20/2019 Cert. #:24685  
Date Issued: 6/20/2018

# INTERNATIONAL

Environmental and Safety Training L.L.C.

720 Billings Street Unit F

Aurora, Colorado 80011

Phone # (720) 859-3134

Fax # (720) 859-0660



*CERTIFIES THAT*

**ALEX MANUEL MARTINEZ COA**

Has successfully completed  
The **EPA- APPROVED AHERA ASBESTOS COURSE** for **WORKER**  
And passed the requirements examination in that discipline

This course is **EPA-Approved** under Section 206 of the  
**Toxic Substance Control Act (TSCA)**

Course Date      06/11/2018 - 06/14/2018  
Exam Date        06/14/2018  
No. Hours         32  
Certificate No    CO061418-01AWI  
Expires            06/14/2019

This course meets the  
requirements of  
AQCC Reg. #8 Part B



Invalid without raised seal

Training Director

Midtown Occupational Health Services  
2420 W. 26<sup>th</sup> Ave. Ste. 200-D Denver, CO 80211  
Phone: (303) 831-9393 Fax: (303) 831-6335  
OSHA Asbestos Certification

Applicants Name Alex Martinez

The above individual was seen by me on 6-18-18 in accordance to 29 CFR 1926.1101 (Asbestos Certification) and 29CFR1910.134 (Respirator Certification). The following was performed:

1.  Completion and review of the standardized medical questionnaire and work history with special emphasis directed to the pulmonary, cardiovascular, and gastrointestinal systems per Appendix D in 1926.1101
2.  Reviewed the employer's description of this individual's duties as they relate to asbestos exposure, the anticipated exposure level, and the personal protective and respiratory equipment to be utilized by this individual.
3.  Review of information from previous medical examinations, if available.
4.  A physical examination with emphasis upon the pulmonary, cardiovascular, and gastrointestinal systems, including a pulmonary function test of forced vital capacity (FVC) and forced expiratory volume at one second (FEV-1).
5.  Determined that a chest roentgenogram was  was not  required as part of this examination. (note: according to CFR 1926.1101 (M)(2)(ii)(C) it is at the discretion of the physician whether or not a chest X-ray is required)
6.  Reviewed OSHA's Medical Evaluation Questionnaire in Appendix C Part A Section 2 in accordance with 29CFR 1910.134 and have determined that this individual may  may not  use a respiratory device while performing his/her required duties.
7.  The employee has been instructed to report any difficulties in using the respirators or any change of physical status to their supervisor or physician.
8.  In accordance with OSHA requirements, I have fully explained the results of the medical examination and laboratory tests to the above named patient.
9.  In accordance with OSHA I have informed this individual of the health risks involved with smoking, of the synergistic relationship between cigarette smoking and asbestos exposure in producing lung cancer, and that cessation of smoking will reduce the risk of lung cancer.

**Midtown Occupational Health Services**  
**2420 W. 26<sup>th</sup> Ave. Ste. 200-D Denver, CO 80211**  
**Phone: (303) 831-9393 Fax: (303) 831-6335**  
**OSHA Asbestos Certification**

There is no detected medical condition which would place this employee at an increased risk of material health impairment from exposure to asbestos, and there are no recommended limitations on the employee concerning the use of personal protective equipment or respirator.

There is a detected medical condition(s) which places this employee at an increased risk. See comments below for limitations:

Comments/ Limitations \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Examining Provider J. Raschbacher, M.D.

JUN 18 2018

Date

J. Raschbacher, M.D.  
 Midtown Occupational  
 Health Services, P.C.  
 2490 W. 26th Ave., Bldg. A, Suite 300  
 Denver, CO 80211  
 303-831-9393

### Midtown Occupational Health Services

2490 W 26th Ave Bld A Ste 300, Denver, CO 80219

**Martinez, Alex**

**ID: 7900 Age: 18 (11/23/1999)**

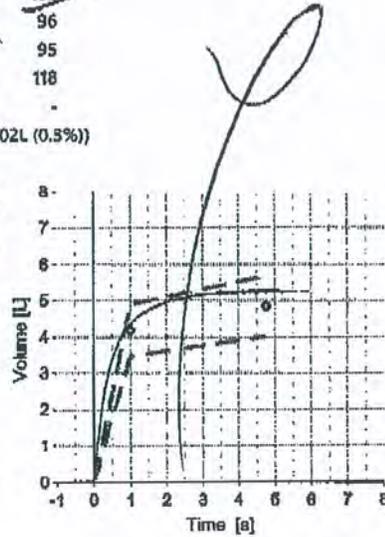
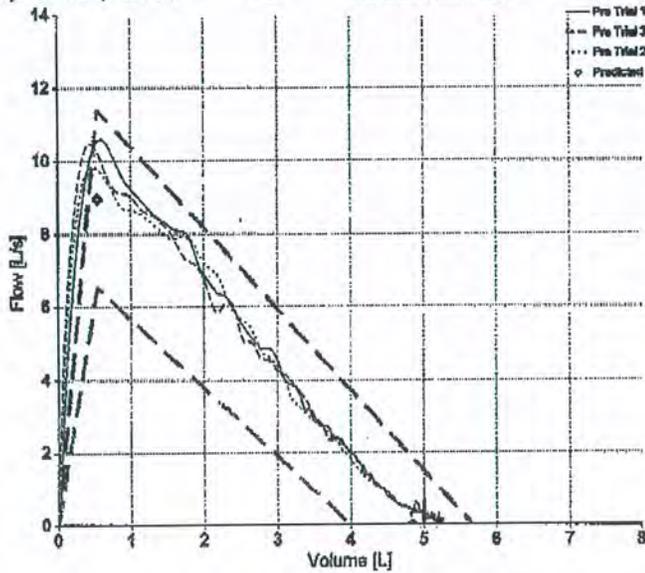
Gender	Male	Height	67 In	Asthma	No
Ethnicity	Hispanic	Weight	170 lb	BMI	26.6
Smoker	No			COPD	--

**FVC (ex only)**

**Your FEV1 / Predicted: 105 %**

Test Date	6/18/2018 11:56:53 AM	Interpretation	GOLD(2008)/Hardie	Value Selection	Best Value
Post Time		Predicted	Hankinson (NHANES III), 1999	BTPS (IN/EX)	1,10/1,02

Parameter	Pred	Pre					%Pred
		LLN	Best	Trial 1	Trial 3	Trial 2	
FVC [L]	4.84	4.00	5.27	5.26	5.24	5.27	109
FEV1 [L]	4.18	3.47	4.37	4.37	4.35	4.32	105
FEV1/FVC	0.860	0.769	0.829	0.831	0.831	0.819	96
FEF25-75 [L/s]	4.73	3.15	4.51	4.51	4.42	4.37	95
PEF [L/s]	8.97	6.54	10.61	10.61	10.48	9.84	118
FET [s]	-	-	4.8	4.8	5.8	4.9	-
Session Quality	Pre	A (FEV1 Var=0.02L (0.3%); FVC Var=0.02L (0.5%))					
System Interpretation	Pre	Normal Spirometry					



### Respirator Fit Test

I, Alex Martinez Coa, acknowledge that I have been fit tested and trained for the proper use and care of my respirator. I have read and understand JKS's written respiratory program manual.

Date of Fit Test: 6/21/2018 Fit Test Conductor: Ruben Dominguez

#### Respirator Information

- 1. Manufacturer: North
- 2. Model: 7700M
- 3. Size (Circle one):     SMALL     MEDIUM     LARGE
- 4. Approval Number: TC-84A-0592

Irritant smoke used (Circle one)?     YES     NO

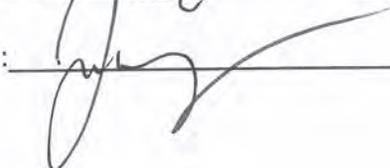
Please initial the following as each test is completed:

- Breathe normally through the respirator
- Breathe deeply through the respirator. Be certain that your breaths are deep and regular
- Turn your head from one side to the other to the fullest extent about every second without bumping the respirator on your shoulders. Ensure that your movement is complete. Inhale on each side.
- Nod your head up and down to the fullest extent about every second without bumping the respirator on your chest. Ensure that your movement is complete and can be completed quickly. Inhale when you are facing up.
- Do several jumping jacks to ensure that the respirator does not come loose from your face.
- Move your mouth to its fullest extent; for example, yawn, move your jaw around, etc. Ensure that you can move your mouth as necessary without compromising the fit of the respirator.
- Read the Rainbow Passage

When the sunlight strikes raindrops in the air, they act like a prism and form a rainbow. A rainbow is a division of white light into many beautiful colors. These take the shape of a long round arch with its path high above and its two ends apparently beyond the horizon. There is, according to legend, a boiling pot of gold at one end. People look, but no one ever finds it. When a man looks for something beyond his reach his friends say he is looking for the pot of gold at the end of the rainbow.

Employee Signature: 

Date: 6/21/2018

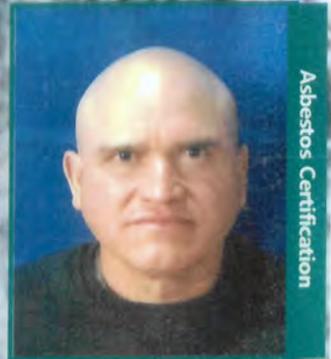
Fit Test Conductor Signature: 

Date: 6/21/2018

Colorado Department  
of Public Health and  
Environment



Worker



Asbestos Certification

Alex Manuel  
Martinez-Coronel

Expires: 6/20/2019 Cert. #:24686

Date Issued: 6/20/2018

# INTERNATIONAL

Environmental and Safety Training L.L.C.

720 Billings Street Unit F

Aurora, Colorado 80011

Phone # (720) 859-3134

Fax # (720) 859-0660



*CERTIFIES THAT*

**ALEX MANUEL MARTINEZ CORONEL**

Has successfully completed  
The **EPA- APPROVED AHERA ASBESTOS COURSE** for **WORKER**  
And passed the requirements examination in that discipline

This course is **EPA-Approved** under Section 206 of the  
**Toxic Substance Control Act (TSCA)**

Course Date 06/11/2018 - 06/14/2018

Exam Date 06/14/2018

No. Hours 32

Certificate No CO061418-02AWI

Expires 06/14/2019

This course meets the  
requirements of  
AQCC Reg. #8 Part B



Invalid without raised seal

Training Director

**Midtown Occupational Health Services**  
**2420 W. 26<sup>th</sup> Ave. Ste. 200-D Denver, CO 80211**  
**Phone: (303) 831-9393 Fax: (303) 831-6335**  
**OSHA Asbestos Certification**

Applicants Name Alex Martinez

The above individual was seen by me on 6-18-78 in accordance to 29 CFR 1926.1101 (Asbestos Certification) and 29CFR1910.134 (Respirator Certification). The following was preformed:

1.  Completion and review of the standardized medical questionnaire and work history with special emphasis directed to the pulmonary, cardiovascular, and gastrointestinal systems per Appendix D in 1926.1101
2.  Reviewed the employer's description of this individual's duties as they relate to asbestos exposure, the anticipated exposure level, and the personal protective and respiratory equipment to be utilized by this individual.
3.  Review of information from previous medical examinations, if available.
4.  A physical examination with emphasis upon the pulmonary, cardiovascular, and gastrointestinal systems, including a pulmonary function test of forced vital capacity (FVC) and forced expiratory volume at one second (FEV-1).
5.  Determined that a chest roentgenogram was  was not  required as part of this examination. (note according to CFR 1926.1101 (M)(2)(i)(C) it is at the discretion of the physician whether or not a chest X-ray is required)
6.  Reviewed OSHA's Medical Evaluation Questionnaire in Appendix C Part A Section 2 in accordance with 29CFR 1910.134 and have determined that this individual may  may not  use a respiratory device while performing his/her required duties.
7.  The employee has been instructed to report any difficulties in using the respirators or any change of physical status to their supervisor or physician.
8.  In accordance with OSHA requirements, I have fully explained the results of the medical examination and laboratory tests to the above named patient.
9.  In accordance with OSHA I have informed this individual of the health risks involved with smoking, of the synergistic relationship between cigarette smoking and asbestos exposure in producing lung cancer, and that cessation of smoking will reduce the risk of lung cancer.

**Midtown Occupational Health Services**  
**2420 W. 26<sup>th</sup> Ave. Ste. 200-D Denver, CO 80211**  
**Phone: (303) 831-9393 Fax: (303) 831-6335**  
**OSHA Asbestos Certification**

1 There is no detected medical condition which would place this employee at an increased risk of material health impairment from exposure to asbestos, and there are no recommended limitations on the employee concerning the use of personal protective equipment or respirator.

         There is a detected medical condition(s) which places this employee at an increased risk. See comments below for limitations:

Comments/ Limitations \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Examining Provider

**J. Raschbacher, M.D.**

Date \_\_\_\_\_

**J. Raschbacher, M.D.**  
**Midtown Occupational**  
**Health Services, P.C.**  
**2490 W. 26th Ave., Bldg. A, Suite 300**  
**Denver, CO 80211**  
**303-831-9393**

**Midtown Occupational Health Services**

2490 W 26th Ave Bld A Ste 300, Denver, CO 80219

**Alex, Martinez**

**ID: 0506 Age: 57 (10/10/1960)**

Gender	Male	Height	66 in	Asthma	No
Ethnicity	Hispanic	Weight	156 lb	BMI	25.2
Smoker	No			COPD	--

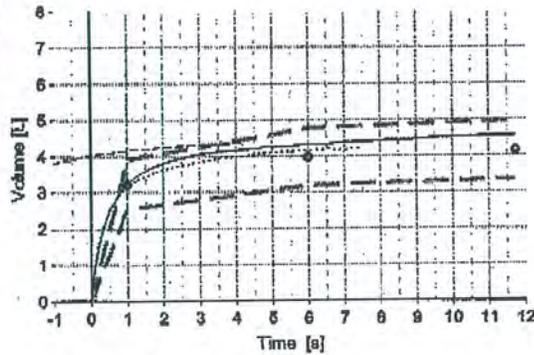
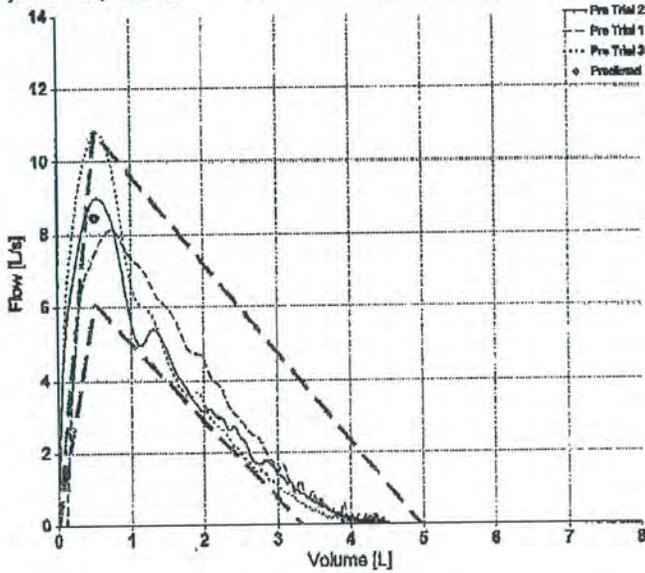
**FVC (ex only)**

**Your FEV1 / Predicted: 105 %**

Test Date	6/18/2018 12:15:39 PM	Interpretation	GOLD(2008)/Hardie	Value Selection	Best Value
Post Time		Predicted	Hankinson (NHANES III), 1999	BTPS (IN/EX)	1.09/1.02

Parameter	Pred	LLN	Pre				%Pred
			Best	Trial 2	Trial 1	Trial 3	
FVC [L]	4.15	3.34	4.54	4.54	4.37	4.18	110
FEV1 [L]	3.21	2.52	3.38	3.22	3.38	3.12	105
FEV1/FVC	0.775	0.684	0.744	0.710	0.774	0.747	96
FEF25-75 [L/s]	2.96	1.42	2.14	2.14	2.88	2.32	73
PEF [L/s]	8.45	6.09	10.79	9.01	8.12	10.79	128
FET [s]	-	-	11.7	11.7	6.8	7.3	-

Session Quality Pre C (FEV1 Var=0.16L (4.6%); FVC Var=0.16L (3.9%))  
 System Interpretation Pre Normal Spirometry



### Respirator Fit Test

I, Alex Martinez Coronell, acknowledge that I have been fit tested and trained for the proper use and care of my respirator. I have read and understand JKS's written respiratory program manual.

Date of Fit Test: 06/21/2018 Fit Test Conductor: Ruben Dominguez

**Respirator Information**

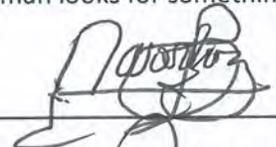
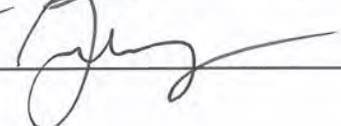
1. Manufacturer: North
2. Model: 7700M
3. Size (Circle one):      SMALL      MEDIUM      LARGE
4. Approval Number: TC-84A-0592

Irritant smoke used (Circle one)?      YES      NO

Please initial the following as each test is completed:

- Breathe normally through the respirator
- Breathe deeply through the respirator. Be certain that your breaths are deep and regular
- Turn your head from one side to the other to the fullest extent about every second without bumping the respirator on your shoulders. Ensure that your movement is complete. Inhale on each side.
- Nod your head up and down to the fullest extent about every second without bumping the respirator on your chest. Ensure that your movement is complete and can be completed quickly. Inhale when you are facing up.
- Do several jumping jacks to ensure that the respirator does not come loose from your face.
- Move your mouth to its fullest extent; for example, yawn, move your jaw around, etc. Ensure that you can move your mouth as necessary without compromising the fit of the respirator.
- Read the Rainbow Passage

When the sunlight strikes raindrops in the air, they act like a prism and form a rainbow. A rainbow is a division of white light into many beautiful colors. These take the shape of a long round arch with its path high above and its two ends apparently beyond the horizon. There is, according to legend, a boiling pot of gold at one end. People look, but no one ever finds it. When a man looks for something beyond his reach his friends say he is looking for the pot of gold at the end of the rainbow.

Employee Signature:   
 Fit Test Conductor Signature: 

Date: 06/21/18  
 Date: 06/21/2018

Colorado Department  
of Public Health and  
Environment



Worker

Asbestos Certification

**Dennis M.  
Mejia**

Expires: 3/8/2019 Cert. #:21028  
Date Issued: 3/7/2018

# INTERNATIONAL



Environmental and Safety Training L.L.C.

720 Billings Street Unit F

Aurora, Colorado 80011

Phone # (720) 859-3134

Fax # (720) 859-0660

*CERTIFIES THAT*

**DENNIS MICHAEL MEJIA**

Has successfully completed

The **EPA- APPROVED AHERA ANNUAL ASBESTOS REFRESHER**

**COURSE for WORKER**

And passed the requirements examination in that discipline

This course is **EPA-Approved** under Section 206 of the  
**Toxic Substance Control Act (TSCA)**

Course Date 02/17/2018

No. Hours 8

Certificate No. CO021718-02AWR

Expires 02/17/2019

This course meets  
the requirements of  
AQCC Reg. #8



Invalid without raised seal

Training Director

Midtown Occupational Health Services  
2420 W. 26<sup>th</sup> Ave. Ste. 200-D Denver, CO 80211  
Phone: (303) 831-9393 Fax: (303) 831-6335  
OSHA Asbestos Certification

Applicants Name Dennis Mejia

The above individual was seen by me on 2/1/18 in accordance to 29 CFR 1926.1101 (Asbestos Certification) and 29CFR.1910.134 (Respirator Certification). The following was performed:

1.  Completion and review of the standardized medical questionnaire and work history with special emphasis directed to the pulmonary, cardiovascular, and gastrointestinal systems per Appendix D in 1926.1101
2.  Reviewed the employer's description of this individual's duties as they relate to asbestos exposure, the anticipated exposure level, and the personal protective and respiratory equipment to be utilized by this individual.
3.  Review of information from previous medical examinations, if available.
4.  A physical examination with emphasis upon the pulmonary, cardiovascular, and gastrointestinal systems, including a pulmonary function test of forced vital capacity (FVC) and forced expiratory volume at one second (FEV-1).
5.  Determined that a chest roentgenogram was  was not  required as part of this examination. (note according to CFR 1926.1101 (M)(2)(ii)(C) it is at the discretion of the physician whether or not a chest X-ray is required)
6.  Reviewed OSHA's Medical Evaluation Questionnaire in Appendix C Part A Section 2 in accordance with 29CFR 1910.134 and have determined that this individual may  may not  use a respiratory device while performing his/her required duties.
7.  The employee has been instructed to report any difficulties in using the respirators or any change of physical status to their supervisor or physician.
8.  In accordance with OSHA requirements, I have fully explained the results of the medical examination and laboratory tests to the above named patient.
9.  In accordance with OSHA I have informed this individual of the health risks involved with smoking, of the synergistic relationship between cigarette smoking and asbestos exposure in producing lung cancer, and that cessation of smoking will reduce the risk of lung cancer.

**Midtown Occupational Health Services**  
**2420 W. 26<sup>th</sup> Ave. Ste. 200-D Denver, CO 80211**  
**Phone: (303) 831-9393 Fax: (303) 831-6335**  
**OSHA Asbestos Certification**

There is no detected medical condition which would place this employee at an increased risk of material health impairment from exposure to asbestos, and there are no recommended limitations on the employee concerning the use of personal protective equipment or respirator.

There is a detected medical condition(s) which places this employee at an increased risk. See comments below for limitations:

Comments/ Limitations CR 2 & 3 read obtained - results pending  
No restrictions

*Matthew Edwards*  
 Examining Provider

3/2/08  
 Date

Matthew Edwards, PA.-C  
 Midtown Occupational  
 Health Services, P.C.  
 2490 W. 26th Ave., Bldg. A, Suite 300  
 Denver, CO 80211  
 303-831-9393

*Handwritten diagonal stamp or scribble*

### Respirator Fit Test

I, Dennis Mejia, acknowledge that I have been fit tested and trained for the proper use and care of my respirator. I have read and understand JKS's written respiratory program manual.

Date of Fit Test: 05-10-2018 Fit Test Conductor: Ruben

#### Respirator Information

- 1. Manufacturer: North
- 2. Model: 7700M
- 3. Size (Circle one):      SMALL      MEDIUM      LARGE
- 4. Approval Number: TC-84A-0592

Irritant smoke used (Circle one)?      YES      NO

Please initial the following as each test is completed:

DM

Breathe normally through the respirator

DM

Breathe deeply through the respirator. Be certain that your breaths are deep and regular

DM

Turn your head from one side to the other to the fullest extent about every second without bumping the respirator on your shoulders. Ensure that your movement is complete. Inhale on each side.

DM

Nod your head up and down to the fullest extent about every second without bumping the respirator on your chest. Ensure that your movement is complete and can be completed quickly. Inhale when you are facing up.

DM

Do several jumping jacks to ensure that the respirator does not come loose from your face.

DM

Move your mouth to its fullest extent; for example, yawn, move your jaw around, etc. Ensure that you can move your mouth as necessary without compromising the fit of the respirator.

DM

Read the Rainbow Passage

When the sunlight strikes raindrops in the air, they act like a prism and form a rainbow. A rainbow is a division of white light into many beautiful colors. These take the shape of a long round arch with its path high above and its two ends apparently beyond the horizon. There is, according to legend, a boiling pot of gold at one end. People look, but no one ever finds it. When a man looks for something beyond his reach his friends say he is looking for the pot of gold at the end of the rainbow.

Employee Signature: Dennis Mejia

Date: 05-10-2018

Fit Test Conductor Signature: Ruben

Date: 5/10/2018

Colorado Department  
of Public Health and  
Environment



Worker



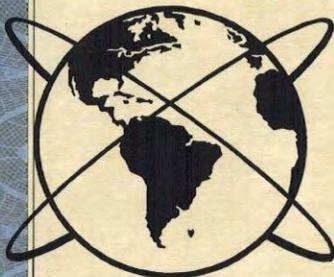
Asbestos Certification

**Martir Alberto  
Menjivar**

Expires: 2/10/2019 Cert. #: 21682

Date Issued: 1/24/2018

# INTERNATIONAL



Environmental and Safety Training L.L.C.  
720 Billings Street Unit F  
Aurora, Colorado 80011  
Phone # (720) 859-3134  
Fax # (720) 859-0660

*CERTIFIES THAT*

**MARTIR ALBERTO MENJIVAR**

Has successfully completed  
The **EPA- APPROVED AHERA ANNUAL ASBESTOS REFRESHER**  
**COURSE** for **WORKER**

And passed the requirements examination in that discipline

This course is **EPA-Approved** under Section 206 of the  
**Toxic Substance Control Act (TSCA)**

Course Date 01/13/2018

No. Hours 8

Certificate No. CO011318-16AWR

Expires 01/13/2019

This course meets  
the requirements of  
AQCC Reg. #8



Invalid without raised seal

Training Director

Midtown Occupational Health Services  
2490 W. 26<sup>th</sup> Ave. Ste. 300-A Denver, CO 80211  
Phone: (303) 831-9393 Fax: (303) 831-6335  
OSHA Asbestos Certification

Applicants Name Monjivar, Martin

The above individual was seen by me on 1/29/18 in accordance to 29 CFR 1926.1101(Asbestos Certification) and 29CFR1910.134 (Respirator Certification). The following was preformed:

1.  Completion and review of the standardized medical questionnaire and work history with special emphasis directed to the pulmonary, cardiovascular, and gastrointestinal systems per Appendix D in 1926.1101
2.  Reviewed the employer's description of this individual's duties as they relate to asbestos exposure, the anticipated exposure level, and the personal protective and respiratory equipment to be utilized by this individual.
3.  Review of information from previous medical examinations, if available.
4.  A physical examination with emphasis upon the pulmonary, cardiovascular, and gastrointestinal systems, including a pulmonary function test of forced vital capacity (FVC) and forced expiratory volume at one second (FEV-1).
5.  Determined that a chest roentgenogram was  was not  required as part of this examination. (note: according to CFR 1926.1101 (M)(2)(i)(C) it is at the discretion of the physician whether or not a chest X-ray is required)
6.  Reviewed OSHA's Medical Evaluation Questionnaire in Appendix C Part A Section 2 in accordance with 29CFR 1910.134 and have determined that this individual may  may not  use a respiratory device while performing his/her required duties.
7.  The employee has been instructed to report any difficulties in using the respirators or any change of physical status to their supervisor or physician.
8.  In accordance with OSHA requirements, I have fully explained the results of the medical examination and laboratory tests to the above named patient.
9.  In accordance with OSHA I have informed this individual of the health risks involved with smoking, of the synergistic relationship between cigarette smoking and asbestos exposure in producing lung cancer, and that cessation of smoking will reduce the risk of lung cancer.

**Midtown Occupational Health Services**  
**2490 W. 26<sup>th</sup> Ave. Ste. 300-A Denver, CO 80211**  
**Phone: (303) 831-9393 Fax: (303) 831-6335**  
**OSHA Asbestos Certification**

There is no detected medical condition which would place this employee at an increased risk of material health impairment from exposure to asbestos, and there are no recommended limitations on the employee concerning the use of personal protective equipment or respirator.

There is a detected medical condition(s) which places this employee at an increased risk. See comments below for limitations:

Comments/ Limitations \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

*[Signature]*  
 Examining Provider

1/29/18  
 Date

### Respirator Fit Test

I, Martir Men Sivar, acknowledge that I have been fit tested and trained for the proper use and care of my respirator. I have read and understand JKS's written respiratory program manual.

Date of Fit Test: 05/10/2018 Fit Test Conductor: Ruben

**Respirator Information**

- 1. Manufacturer: North
- 2. Model: 7700M
- 3. Size (Circle one):      SMALL      MEDIUM      LARGE
- 4. Approval Number: TC-84A-0592

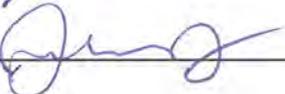
Irritant smoke used (Circle one)?      YES      NO

Please initial the following as each test is completed:

- MM Breathe normally through the respirator
- MM Breathe deeply through the respirator. Be certain that your breaths are deep and regular
- MM Turn your head from one side to the other to the fullest extent about every second without bumping the respirator on your shoulders. Ensure that your movement is complete. Inhale on each side.
- MM Nod your head up and down to the fullest extent about every second without bumping the respirator on your chest. Ensure that your movement is complete and can be completed quickly. Inhale when you are facing up.
- MM Do several jumping jacks to ensure that the respirator does not come loose from your face.
- MM Move your mouth to its fullest extent; for example, yawn, move your jaw around, etc. Ensure that you can move your mouth as necessary without compromising the fit of the respirator.
- MM Read the Rainbow Passage  
When the sunlight strikes raindrops in the air, they act like a prism and form a rainbow. A rainbow is a division of white light into many beautiful colors. These take the shape of a long round arch with its path high above and its two ends apparently beyond the horizon. There is, according to legend, a boiling pot of gold at one end. People look, but no one ever finds it. When a man looks for something beyond his reach his friends say he is looking for the pot of gold at the end of the rainbow.

Employee Signature: 

MM 05/10/2018  
Date: 10/05/2018

Fit Test Conductor Signature: 

Date: 5/10/2018

Colorado Department  
of Public Health and  
Environment



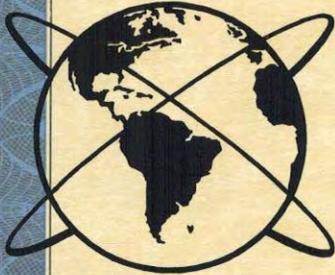
Worker

Asbestos Certification

**Wilmer O  
Andueza-Mendoza**

Expires: 10/30/2019 Cert. #: 24054  
Date Issued: 10/30/2018

# INTERNATIONAL



Environmental and Safety Training L.L.C.  
720 Billings Street Unit F  
Aurora, Colorado 80011  
Phone # (720) 859-3134  
Fax # (720) 859-0660

*CERTIFIES THAT*

**WILMER O. ANDUEZA MENDOZA**

Has successfully completed  
The **EPA- APPROVED AHERA ANNUAL ASBESTOS REFRESHER**  
**COURSE for WORKER**

And passed the requirements examination in that discipline

This course is **EPA-Approved** under Section 206 of the  
**Toxic Substance Control Act (TSCA)**

Course Date 09/29/2018  
No. Hours 8  
Certificate No. CO092918-06AWR  
Expires 09/29/2019

This course meets the  
requirements of  
AQCC Reg. #8 Part B



Invalid without raised seal

A handwritten signature in black ink, appearing to read "F. Cuervo".

Training Director

Midtown Occupational Health Services  
2420 W. 26<sup>th</sup> Ave. Ste. 200-D Denver, CO 80211  
Phone: (303) 831-9393 Fax: (303) 831-6335  
OSHA Asbestos Certification

Applicants Name Wilmer Andueza

The above individual was seen by me on 11/2/18 in accordance to 29 CFR 1926.1101 (Asbestos Certification) and 29CFR 1910.134 (Respirator Certification). The following was performed:

1.  Completion and review of the standardized medical questionnaire and work history with special emphasis directed to the pulmonary, cardiovascular, and gastrointestinal systems per Appendix D in 1926.1101
2.  Reviewed the employer's description of this individual's duties as they relate to asbestos exposure, the anticipated exposure level, and the personal protective and respiratory equipment to be utilized by this individual.
3.  Review of information from previous medical examinations, if available.
4.  A physical examination with emphasis upon the pulmonary, cardiovascular, and gastrointestinal systems, including a pulmonary function test of forced vital capacity (FVC) and forced expiratory volume at one second (FEV-1).
5.  Determined that a chest roentgenogram was  was not  required as part of this examination. (note: according to CFR 1926.1101 (M)(2)(ii)(C) it is at the discretion of the physician whether or not a chest X-ray is required)
6.  Reviewed OSHA's Medical Evaluation Questionnaire in Appendix C Part A Section 2 in accordance with 29CFR 1910.134 and have determined that this individual may  may not  use a respiratory device while performing his/her required duties.
7.  The employee has been instructed to report any difficulties in using the respirators or any change of physical status to their supervisor or physician.
8.  In accordance with OSHA requirements, I have fully explained the results of the medical examination and laboratory tests to the above named patient.
9.  In accordance with OSHA I have informed this individual of the health risks involved with smoking, of the synergistic relationship between cigarette smoking and asbestos exposure in producing lung cancer, and that cessation of smoking will reduce the risk of lung cancer.

Midtown Occupational Health Services  
2420 W. 26<sup>th</sup> Ave. Ste. 200-D Denver, CO 80211  
Phone: (303) 831-9393 Fax: (303) 831-6335

**OSHA Asbestos Certification**

There is no detected medical condition which would place this employee at an increased risk of material health impairment from exposure to asbestos, and there are no recommended limitations on the employee concerning the use of personal protective equipment or respirator.

There is a detected medical condition(s) which places this employee at an increased risk. See comments below for limitations:

Comments/ Limitations No restrictions

[Signature]  
Examining Provider

11/2/18  
Date

Lon Noel, M.D.  
Midtown Occupational  
Health Services, P.C.  
2490 W. 26th Ave., Bldg. A, Suite 300  
Denver, CO 80211  
303-831-9393

OSHA ASBESTOS CERTIFICATION

### Respirator Fit Test

I, Wilmer Andueza, acknowledge that I have been fit tested and trained for the proper use and care of my respirator. I have read and understand JKS's written respiratory program manual.

Date of Fit Test: 5/10/2018 WA 10/05/2018 Fit Test Conductor: Roben

#### Respirator Information

- 1. Manufacturer: North
- 2. Model: 7700M
- 3. Size (Circle one):      SMALL      MEDIUM      LARGE
- 4. Approval Number: TC-84A-0592

Irritant smoke used (Circle one)?      YES      NO

Please initial the following as each test is completed:

WA

Breathe normally through the respirator

WA

Breathe deeply through the respirator. Be certain that your breaths are deep and regular

WA

Turn your head from one side to the other to the fullest extent about every second without bumping the respirator on your shoulders. Ensure that your movement is complete. Inhale on each side.

WA

Nod your head up and down to the fullest extent about every second without bumping the respirator on your chest. Ensure that your movement is complete and can be completed quickly. Inhale when you are facing up.

WA

Do several jumping jacks to ensure that the respirator does not come loose from your face.

WA

Move your mouth to its fullest extent; for example, yawn, move your jaw around, etc. Ensure that you can move your mouth as necessary without compromising the fit of the respirator.

WA

Read the Rainbow Passage

When the sunlight strikes raindrops in the air, they act like a prism and form a rainbow. A rainbow is a division of white light into many beautiful colors. These take the shape of a long round arch with its path high above and its two ends apparently beyond the horizon. There is, according to legend, a boiling pot of gold at one end. People look, but no one ever finds it. When a man looks for something beyond his reach his friends say he is looking for the pot of gold at the end of the rainbow.

Employee Signature: [Signature]

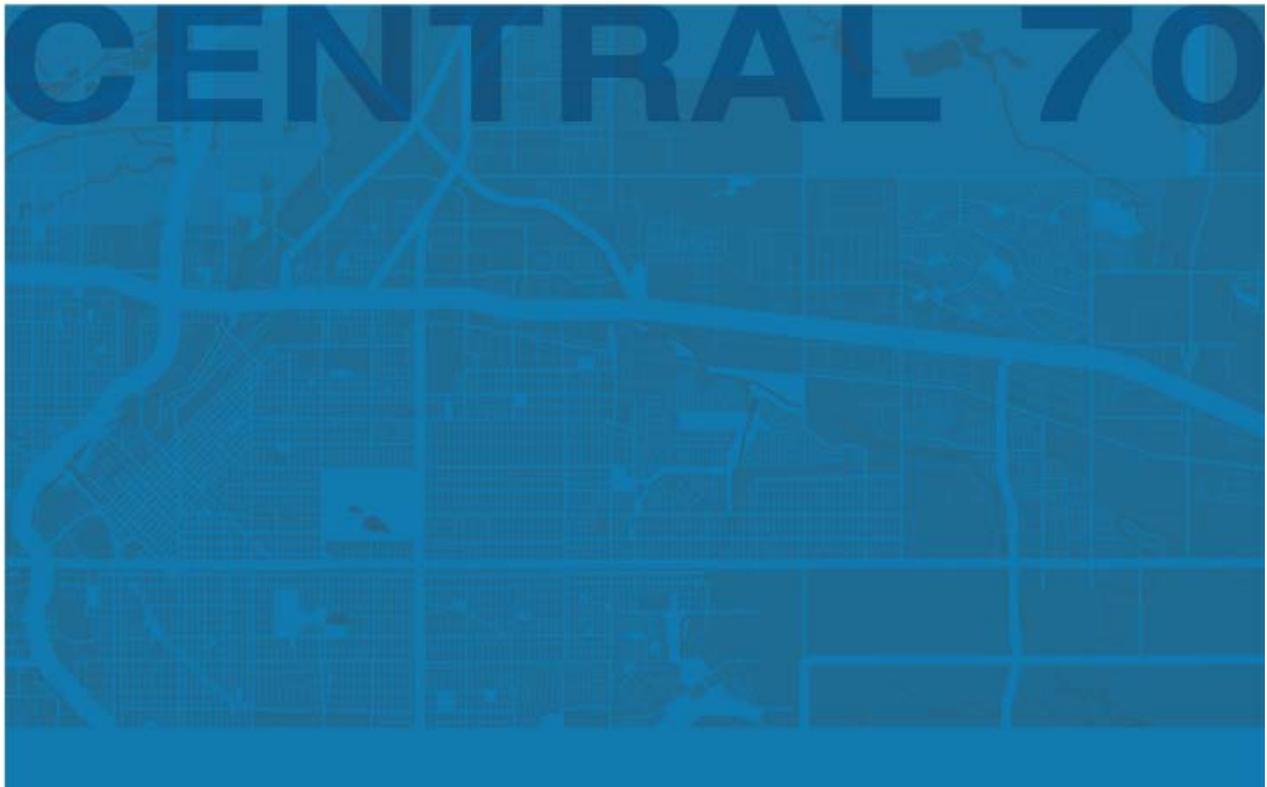
Date: 5/10/18 10/5/18 WA [Signature]

Fit Test Conductor Signature: [Signature]

Date: 5/10/2018

## 6. Project Design

## 6a. SSAR



June 27, 2018



**Structure Survey Assessment Report AP-77**

4615 Fillmore Street

Denver, CO 80216

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## LIST OF REPORT ACRONYMS/ABBREVIATIONS

<b>ACMs</b>	Asbestos Containing Materials
<b>ASHERA</b>	Asbestos Hazard Emergency Response Act
<b>APEC</b>	All-Phase Environmental Consultants
<b>AMS</b>	Air Monitoring Specialist
<b>CABI</b>	Colorado Asbestos Building Inspector
<b>CDOT</b>	Colorado Department of Transportation
<b>CDPHE</b>	Colorado Department of Public Health and Environment
<b>CFCs</b>	Chlorofluorocarbons
<b>CFR</b>	Code of Federal Regulations
<b>EP</b>	Environmental Professional
<b>EPA</b>	Environmental Protection Agency
<b>FAA</b>	Flame Atomic Absorption
<b>LBP</b>	Lead Based Paint
<b>LCP</b>	Lead Containing Paint
<b>mg/L</b>	Milligrams Per Liter
<b>NESHAP</b>	National Emissions Standards for Hazardous Air Pollutants
<b>NLC</b>	Non-Lead Containing Paint
<b>NVLAP</b>	National Voluntary Laboratory Accreditation Program
<b>OSHA</b>	Occupational Safety and Health Administration
<b>PCBs</b>	Polychlorinated Biphenyls
<b>PD</b>	Project Designer
<b>PEL</b>	Permissible Exposure Limits
<b>PLM</b>	Polarized Light Microscopy
<b>PPE</b>	Personal Protective Equipment
<b>ppm</b>	Parts Per Million
<b>RBM</b>	Regulated Building Materials
<b>RCRA</b>	Resource Conservation and Recovery Act
<b>RHMs</b>	Recognized Hazardous Materials
<b>SSAP</b>	Structure Survey Assessment Plan
<b>TC</b>	Toxicity Characteristic
<b>TCLP</b>	Toxicity Characteristic Leaching Procedure
<b>USEPA</b>	U.S. Environmental Protection Agency
<b>UWR</b>	EPA Universal Waste Rule

## LIST OF SAMPLING ACRONYMS/ABBREVIATIONS

<b>A</b>	Adhesive
<b>BM</b>	Brick/Mortar
<b>CB</b>	Cove Base
<b>CC</b>	Concrete
<b>CER</b>	Ceramic Block
<b>CM</b>	Ceramic Tile/Mortar
<b>CMU</b>	Concrete Masonry Unit/Mortar
<b>CP</b>	Carpet
<b>CT</b>	Ceiling Tile
<b>D</b>	Drywall (no surfacing)
<b>DJ</b>	Drywall/Joint Compound
<b>F</b>	Flooring
<b>FT</b>	Floor Tile
<b>IN</b>	Insulation
<b>L</b>	Linoleum
<b>M</b>	Mastic
<b>MF</b>	Multiple layered Flooring
<b>MT</b>	Mortar
<b>PC</b>	Popcorn Ceiling
<b>PL</b>	Plaster
<b>PM</b>	Panel/Mastic
<b>R</b>	Roofing
<b>RF</b>	Roof Flashing
<b>S</b>	Siding
<b>ST</b>	Stucco
<b>T</b>	Texture (no substrate)
<b>TC</b>	Textured Composite Board
<b>TD</b>	Textured Drywall
<b>TSI</b>	Thermal System Insulation
<b>VB</b>	Vapor Barrier
<b>VP</b>	Vent Paste (heating/cooling systems)
<b>VW</b>	Vent Wrap (heating/cooling systems)
<b>WC</b>	Window Caulk
<b>WD</b>	Wallpapered Drywall

## **Tables**

Table 1-1	Project Details
Table 3-1A	Asbestos Containing Samples
Table 3-1B	Non-Asbestos Containing Samples
Table 3-2	Summary of Paint Chip Laboratory Analysis for Lead
Table 3-3	Summary of Regulated Building Materials

## **Figures**

Figure 1	Site Location
Figure 2	Asbestos Bulk Sample Locations
Figure 3	Lead-Based Paint Sample Locations
Figure 4	Regulated Building Materials

## **Appendices**

Appendix A	Asbestos, Lead Inspector and Laboratory Certifications
Appendix B	Positive Asbestos & Lead Sample Material Photographs
Appendix C	Laboratory Results & Chain of Custody – Asbestos
Appendix D	Laboratory Results & Chain of Custody – Lead & TCLP

**APEC Project # 18-3066-018**

***Prepared for***

Kiewit Meridiam Partners

***Prepared by***

*Logan Greenfield*

Logan Greenfield, CABI & AMS #20715

VP of Field Services

***Reviewed by***

*Brandice Eslinger*

Brandice Eslinger, EP, CABI & PD # 5494

President

# 1 Introduction

APEC was contracted to complete an environmental building survey for suspect ACMs, LBP, and RBM. This survey will identify materials that will need to be abated or removed prior to the future demolition activities.

**Table 1-1 Project Details**

Client Name:	Kiewit Meridiam Partners
Site Location:	4615 Fillmore Street, Denver, CO 80216
Building Type	Residential House
Building Size	Building is approximately 1,722 square feet
Construction Date:	1889 – Based on the City and County of Denver Assessor's Records
Building Uses:	Residential
Types of Materials to be Disturbed/Description of Proposed Disturbances:	Client intends to demolish the structure. All building materials will be impacted.

This Structure Survey Assessment was conducted as part of the Central 70 Project located in Denver, Colorado. This assessment was conducted in accordance with the SSAP, dated March 27, 2018. The SSAP, as defined in Section 23132 of Schedule 17 (Environmental Requirements) of the final Central 70 Project Agreement between CDOT and Kiewit Meridiam Partners, identifies the procedures for completing building and structure surveys for ACMs, LBP and universal wastes or other RHMs, as defined by the RCRA; universal waste, as defined by the USEPA and 6 CCR Part 273 of the Colorado Hazardous Waste Regulations; CFCs, as defined by the Clean Air Act; and PCBs, as defined by the Toxic Substances Control Act.

## 2 Site Survey Methodology

---

### 2.1 ASBESTOS SURVEY

On May 31, 2018, APEC certified personnel Logan Greenfield conducted an asbestos survey for demolition at the aforementioned address. The asbestos survey (inspection/sampling) was completed in accordance with the SSAP and follows guidelines established under the USEPA's AHERA program and as required by USEPA regulation 40 CFR Part 61, NESHAP. Bulk sampling of suspected ACMs were performed in strict accordance with AHERA sampling procedures detailed in 40 CFR 763.86. These include but aren't limited to labeling each sample, recording on a chain of custody, taking a photo of the sample and recording the location on a site diagram. Demolition work could disturb materials that contain asbestos and put unprotected workers at risk, violating asbestos regulations, which are enforced by OSHA, the EPA, the CDPHE and the Denver County Health Department. All samples were collected and submitted to EMSL Analytical, Inc. in Denver, CO per APEC chain of custody protocol. The laboratory is a member of NVLAP and is qualified to perform the required analysis (Appendix A). The analysis conducted was the EPA Interim Method for the Determination of Asbestos in Bulk Samples, using standard PLM and dispersion staining as established in 40 CFR Part 763.

***This inspection report and methodology complies with the CDPHE Asbestos Sampling and Report Requirements Memorandum dated February 28, 2018.***

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### 2.2 LEAD-BASED PAINT SURVEY

On May 31, 2018, APEC certified personnel Rick Ralston conducted the LBP survey. The survey was conducted to evaluate the absence and/or presence of LBP or LCP that will be impacted during future demolition activities. The survey consisted of reviewing and inspecting the interior, exterior and roof system of the structure for suspect LBP or LCP. The testing method was the use of a heat gun and/or scraping a portion of the paint to the substrate (material under the paint). Proper chain of custody procedures were followed and samples were sent to EMSL Analytical, Inc. in Cinnaminson, NJ, via Fed Ex. The samples were analyzed by total lead (percent by weight) via FAA by EPA Method 7420. EMSL is accredited under the American Industrial Hygiene Association's Environmental Lead Proficiency Analytical Testing program. LBP, according to the EPA, is defined as paint that contains lead in concentrations greater than 1.0 milligrams per square centimeter ( $\text{mg}/\text{cm}^2$ ) as measured with an XRF or 5000 ppm when measured by weight, or 0.5 percent by weight.

A total of 8 homogeneous paint color variations of suspect LBP areas were identified. One paint chip sample was collected from each suspect homogeneous area and submitted to the laboratory for analysis. Representative photographs of LBP and/or LCP were taken and are included in the photographic log (Appendix B). The paint chip sample locations were recorded and are included on the sample location drawing (Figure 3). Descriptions of the suspect homogeneous materials and a list of the collected samples are described in the 'Findings' section.

Based on the analytical results for the 8 samples, a TCLP sample was analyzed by collecting a representative sample (approximately 105 grams) of combined suspect building materials. The sample results are located in Appendix D.

---

## 2.3 SURVEY OF SUSPECTED RBMS

On May 31, 2018, APEC personnel conducted the RBM inventory consisting of inspecting the interior, exterior and roof system. The inspection was conducted to visually identify and quantify any building materials, devices and equipment suspected of containing potentially regulated materials as they pertain to the EPA UWR requirements (40 CFR, Part 273). APECs inventory review consisted of the following: potential mercury-containing thermostats/switches; fluorescent light tubes and compact fluorescent bulbs; items potentially containing PCBs (generally ballasts found within the fluorescent light fixtures); tritium powered exit signs; smoke detectors potentially containing Americium-241; and Freon-containing refrigeration systems. The survey of suspected RBMs is for use by contractors conducting the removal of items from the property. Samples of suspect RBMs are not required for this type of survey, as all determinations are made by visual means.

Although not a “regulated material”, things such as gas meters, electrical meters and electrical panels are listed with the RBM inventory. These materials will require removal and/or disconnection prior to demolition and until done so should be handled with care.

## 3 Findings

---

### 3.1 ASBESTOS SURVEY

A total of 34 bulk samples, including 1 duplicate sample, were collected from 9 suspect homogenous materials throughout the structure, and the results of the PLM analysis are presented in Table 3-1A and Table 3-1B. The following samples are positive for ACMs (i.e. present greater than 1%):

#### Regulated Asbestos Containing Materials (RACM)

- 4615F-R3-TD1A, 4615F-R2-TD1B, 4615F-R4-TD1C, 4615F-R4-TD1D, 4615F-R5-TD1E, 4615F-H-TD1F, 4615F-R6-TD1G, 4615F-C3-TD1H and 4615F-R7-TD1I – Light Textured Drywall on the walls of rooms 2,3,4,5,6,7, closets and hallway
- 4615F-R1-TD2A, 4615F-R1-TD2B & 4615F-R1-TD2C – Spray Textured Drywall on ceiling of room 1

#### Point Counts

Point count analysis occurs for samples with <1% of asbestos. Point counts were not needed because the initial results did not exceed 1% asbestos in the homogeneous materials. The laboratory analytical report is included as Appendix C.

#### Duplicate Samples

For quality assurance purposes, duplicate samples are taken approximately every 20<sup>th</sup> sample, per the EPA “pink book” that is used by Colorado Regulation 8 for sampling protocol. Duplicate samples are listed as a duplicate (Q) in the sample location column of Table 3-1A or Table 3-1B. One sample, 4615F-R5-PM5Q, was collected because a total of 33 samples were obtained.

---

## 3.2 LEAD-BASED PAINT SURVEY

A total of 8 homogeneous paint color variations were analyzed for the presence of LBPs and LCPs (Table 3-2; Figure 3). Under EPA 40 CFR Part 745, LBP is defined as any paint or surface coating that contains lead equal to or exceeding 0.5% (by weight), while LCP is defined as any paint or surface coating containing lead greater than or equal to 0.06% up to 0.5% (by weight). Caution should be taken during demolition to minimize cutting, abrading, or otherwise causing an air disturbance to this material and work must be completed in accordance with the OSHA Lead in Construction Standard (29 CFR 1926.62).

One lead sample (4615F-R3-L-1) was found to be greater than 0.06% by weight and less than 0.5% by weight and is considered LCP. Four samples (4615F-R3-L-4, 4615F-R6-L-6, 4615F-EX-L-7, 4615F-EX-L-8) were found to be greater than 0.5% by weight and are considered LBP (Table 3-2). The remaining 3 samples were less than the LCP and LBP thresholds, and are considered NLC. The laboratory analytical report is included in Appendix D.

---

### 3.2.1 TCLP LEAD ANALYTICAL RESULTS

Since one sample analyzed as an LCP and four samples as an LBP, TCLP analysis of lead was performed. TCLP analysis simulates the potential for the demolished building materials to leach lead if placed in the landfill and results of the analysis determine if the materials will be considered hazardous waste. TCLP analysis was performed for landfill compliance and the TC maximum concentration is 5 mg/L. The results of the TCLP analysis is <0.40 mg/L, which is below the regulated limit and therefore not considered hazardous. The analytical report is included in Appendix D.

---

## 3.3 REGULATED BUILDING MATERIALS INVENTORY SURVEY

Several suspect RBMs were visually identified throughout the structure. RBMs that are a cause of concern, when discovered, are discussed below. A complete list of the RBMs is presented in Table 3-3, and selected locations of the RBMs are depicted in Figure 4.

## 4 Conclusions and Recommendations

---

### 4.1 ASBESTOS

Approximately 2,382 square feet of RACM was identified as light textured drywall located on the walls and ceilings of rooms 2,3,4,5,6,7, closets, hallway and spray textured drywall located on the ceiling of room 1. This material will require abatement prior to demolition of the structure because this is easily rendered friable.

No other ACM was identified throughout the structures; however, if additional suspect materials, not sampled during this investigation, are identified during demolition, they should either be assumed to be ACM or should be sampled prior to disturbance.

#### **General Information**

Prior to demolition activities, all friable and non-friable (that can or will be rendered friable) ACM that may be impacted during the demolition must be abated by a Colorado Certified Asbestos Abatement Contractor as required by NESHAP and the CDPHE – Air Pollution Control Division: Asbestos. The exception are Category I & II Non-Friable ACMs that can, with best management practices, remain during the activities and remain non-friable, i.e. not able to be reduced to a dust. Activities such as grinding, excessive munching of materials, sawing, jack-hammering, etc. are strictly prohibited.

According to AHERA, EPA, and the CDPHE, materials testing at less than or equal to 1% asbestos fibers are not considered to be an ACM. However, any materials containing asbestos still need to be regulated. OSHA protocol must be followed when handling materials containing ANY amount of asbestos. Proper PPE and engineering controls must be utilized if these materials will be impacted during demolition activities.

---

## 4.2 LEAD-BASED PAINT

Lead was detected at concentrations above the LCP threshold in 1 of the 8 samples and above the LBP threshold in 4 of the 8 samples. The remaining 3 samples are considered NLC. Although LCP was identified in the samples analyzed, the TC limit of 5 mg/L was not exceeded in the TCLP lead analysis. No lead abatement is required prior to demolition.

TCLP results confirmed that the waste stream is not hazardous with respect to lead content.

While the TCLP results indicate that the waste stream is not characteristically hazardous with respect to lead content, LCP and LBP are still present in the building materials. Therefore, the contractor responsible for demolition of this structure is notified with receipt of this report of the presence or potential presence of LCP and/or LBP in the building materials that comprise the building. The contractor should also notify their employees of the presence of LCP or LBP prior to any disturbance and make the US Department of Labor OSHA publication number 3142-12R 2004 available to their workers. (“Lead in Construction”, <http://www.osha.gov/Publications/osha3142.pdf>). The standards address topics such as PELs for workers, exposure assessment, protection of employees during assessment of exposure, employee notification, PPE, medical surveillance, along with other topics related to working with LCP and LBP.

---

## 4.3 REGULATED BUILDING MATERIALS

Materials found during the regulated materials inventory within the building may require special handling or disposal prior to demolition activities. If abatement is needed, APEC recommends that the asbestos contractor or general contractor selected by the client properly dispose of these regulated materials, per applicable regulations.

With regards to RBMs, if listed in table 3-3, it is likely that the ballasts in the fluorescent light fixtures do contain PCBs. Where a manufacturer's label is present indicating “no PCBs”, the ballast can be disposed of with recyclable metal or with other municipal waste. During removal for disposal as part of the demolition activities, each ballast should be visually inspected for the manufacturer's label indicating “no PCBs”. If the label does not have this notation, the ballast should be considered PCB-containing and should be disposed of as a hazardous waste in accordance with local, state, and federal regulatory guidelines. Refrigerators and air conditioning units contain freon, which will need to be reclaimed or taken to a facility capable of this activity. Mercury containing thermostats will need to be disposed of at a facility certified to take this type of material. The contractor should also carefully remove all associated fluorescent light tubes and compact fluorescent lights and recycle or dispose of these materials according to applicable regulations.

This inspection was primarily relevant to the Federal UWR requirements under 40 CFR 273. It should be noted that contractors submitting bids for removal of the RBMs should verify quantities, conditions, and locations of all RBMs prior to bid submittals and initiating demolition activities. The contractor is also responsible for proper recycling and/or disposal of the RBMs, and should follow all federal, state and local regulations when handling these materials.

## 5 Limitations

This Structure Survey Assessment Report was prepared by All-Phase Environmental Consultants, Inc., at the request of and for the sole benefit of Kiewit Meridiam Partners, or any entity controlling, controlled by, or under common control with Colorado Department of Transportation. APECs certified inspectors used reasonable diligence and professional judgement to identify all suspect asbestos-containing materials, lead based paint, and regulated building materials in the property. APEC will not be held liable for property damage or any loss of property value due to the inspection. This report is not an abatement plan and is intended to be informational only; APEC will not be held responsible for the mishandling of the information contained herein.

APEC utilized destructive inspection methods in performing this survey, however accessibility may have been a limiting condition. If additional impacted suspect materials are discovered during related work for which there are no sample documentation/results, APEC recommends pursuing one of the following alternatives: Sample and analyze the discovered suspect material(s) to determine whether it contains asbestos, lead or other regulated materials; or assume the material(s) to be containing, quantify and remove on a unit cost basis.

Notwithstanding any provision to the contrary, the total liability of "All Phase Environmental Consultants, Inc.", and its employees, officers or directors be liable in contract, tort, strict liability warranty or otherwise, for any special, incidental or consequential damages, such as but not limited to, delay, disruption, loss of product, loss of anticipated profits or revenue, damages, cost, and expenses, including attorney's fees, shall not exceed the aggregate amount paid to All Phase Environmental Consultants, Inc. under this Agreement regardless of the legal theory under which such liability is imposed.

## Tables

Table 3-1A	Asbestos Containing Samples
Table 3-1B	Non-Asbestos Containing Samples
Table 3-2	Summary of Paint Chip Laboratory Analysis for Lead
Table 3-3	Summary of Regulated Building Materials

**Table 3-1A Positive Asbestos Containing Samples**

Sample Name	Sample Location	Lab Results/ Asbestos Type	Detection Method(s)	Condition	Material Description	Material Location	NESHAP Classification	Estimated Quantity (Sq. ft.)
4615F-R3-TD1A	ROOM 3	TEXTURE 3% CHRYSOTILE JOINT COMPOUND 3% CHRYSOTILE	PLM	Good	LIGHT TEXTURED DRYWALL	WALLS AND CEILINGS OF ROOM 2,3,4,5,6,7 , CLOSETS & HALLWAY	RACM	2,182
4615F-R2-TD1B	ROOM 2	TEXTURE 2% CHRYSOTILE	PLM	Good			RACM	
4615F-R4-TD1C	ROOM 4	TEXTURE 3% CHRYSOTILE JOINT COMPOUND 3% CHRYSOTILE	PLM	Good			RACM	
4615F-R4-TD1D	ROOM 4	TEXTURE 2% CHRYSOTILE	PLM	Good			RACM	
4615F-R5-TD1E	ROOM 5	TEXTURE 2% CHRYSOTILE	PLM	Good			RACM	
4615F-H-TD1F	HALLWAY	TEXTURE 2% CHRYSOTILE	PLM	Good			RACM	
4615F-R6-TD1G	ROOM 6	TEXTURE 2% CHRYSOTILE	PLM	Good			RACM	
4615F-C3-TD1H	CLOSET 3	Homogeneous to Samples 4615F-R3-TD1A, 4615F-R2-TD1B, 4615F-R4-TD1C, 4615F-R4-TD1D, 4615F-R5-TD1E, 4615F-H-TD1F & 4615F-R6-TD1G						
4615F-R7-TD1I	ROOM 7							
4615F-R1-TD2A	ROOM 1	TEXTURE 2% CHRYSOTILE	PLM	Good	SPRAY TEXTURED DRYWALL	CEILING OF ROOM 1	RACM	200
4615F-R1-TD2B		TEXTURE <1% CHRYSOTILE      JOINT COMPOUND <1% CHRYSOTILE	PLM	Good			RACM	
4615F-R1-TD2C		TEXTURE 2% CHRYSOTILE	PLM	Good			RACM	
ND=Non-Detect PLM=Polarized Light Microscopy NA=Not Applicable RACM=Regulated Asbestos Containing Materials								

**Table 3-1B Non-Asbestos Containing and OSHA Regulated Samples**

Sample Name	Sample Location	Lab Results/ Asbestos Type	Detection Method(s)	Condition	Material Description	Material Location	NESHAP Classification
4615F-R2-L3A	ROOM 2	ND	PLM	Good	FLOWER PATTERN LINOLEUM	FLOORS OF ROOMS 2 & 3	N/A
4615F-R2-L3B							
4615F-R3-L3C	ROOM 3						
4615F-R5-L4A	ROOM 5	ND	PLM	Good	WOOD PATTERN LINOLEUM	FLOOR OF ROOM 5	N/A
4615F-R5-L4B							
4615F-R5-L4C							
4615F-R5-PM5A	ROOM 5	ND	PLM	Good	PANEL/MASTIC	WALLS OF ROOM 5	N/A
4615F-R5-PM5B							
4615F-R5-PM5Q							
4615F-R5-PM5C							
4615F-R1-M6A	ROOM 1	ND	PLM	Good	PLAIN DRYWALL/MASTIC	WALLS BEHIND WOOD PANELING	N/A
4615F-R1-M6B							
4615F-R1-M6C							
4615F-EX-VB7A	EXTERIOR	ND	PLM	Good	VAPOR BARRIER	BEHIND SIDING	N/A
4615F-EX-VB7B							
4615F-EX-VB7C							
4615F-EX-R8A	EXTERIOR	ND	PLM	Good	ROOFING	EXTERIOR	N/A
4615F-EX-R8B							
4615F-EX-R8C							
4615F-EX-WG9A	EXTERIOR	ND	PLM	Good	WINDOW GLAZING	WINDOWS	N/A
4615F-EX-WG9B							

<b>Sample Name</b>	<b>Sample Location</b>	<b>Lab Results/ Asbestos Type</b>	<b>Detection Method(s)</b>	<b>Condition</b>	<b>Material Description</b>	<b>Material Location</b>	<b>NESHAP Classification</b>
4615F-EX-WG9C	EXTERIOR	ND	PLM	Good	WINDOW GLAZING	WINDOWS	N/A

ND=Non-Detect  
 PLM=Polarized Light Microscopy  
 NA=Not Applicable

**Table 3-2 Summary of Paint Chip Analysis for Lead**

<b>Sample Number</b>	<b>Sample Location</b>	<b>Lead Concentration (% wt.)</b>	<b>Component</b>	<b>Paint Description</b>	<b>Classification</b>
<b>4615-R3-L-1</b>	<b>Room 3</b>	<b>0.23</b>	<b>Wood</b>	<b>White</b>	<b>LCP</b>
4615-R4-L-2	Room 4	<0.0080	Drywall	Cream	NLC
4615-R4-L-3	Room 4	<0.0080	Drywall	White	NLC
<b>4615-R4-L-4</b>	<b>Room 4</b>	<b>1.0</b>	<b>Wood</b>	<b>Off-White</b>	<b>LBP</b>
4615-R6-L-5	Room 6	<0.0080	Drywall	Peach	NLC
<b>4615-R6-L-6</b>	<b>Room 3</b>	<b>2.1</b>	<b>Wood</b>	<b>Brown</b>	<b>LBP</b>
<b>4615-Ex-L-7</b>	<b>Exterior</b>	<b>5.6</b>	<b>Wood</b>	<b>Fawn</b>	<b>LBP</b>
<b>4615-Ex-L-8</b>	<b>Exterior</b>	<b>1.7</b>	<b>Wood</b>	<b>Brown</b>	<b>LBP</b>

**Table 3-3 Summary of Regulated Building Materials**

<b>Room</b>	<b>Material</b>	<b>Location</b>	<b>Quantity Fixture/Bulbs each</b>
Garage	Florescence Fixture	Ceiling	1 fixture/2 bulbs
Garage	Breaker Panel	North wall	1
Exterior	Gas Meter	Front of house	1
Room 3	Fire alarm	Ceiling	1
Room 3	Freezer	North Side of Room	1
Room 3	Breaker Panel	West end	1
Exterior	Electrical Meter	South West Corner of House	1
Exterior	Breaker Panel	South West Corner of House	1

## Figures

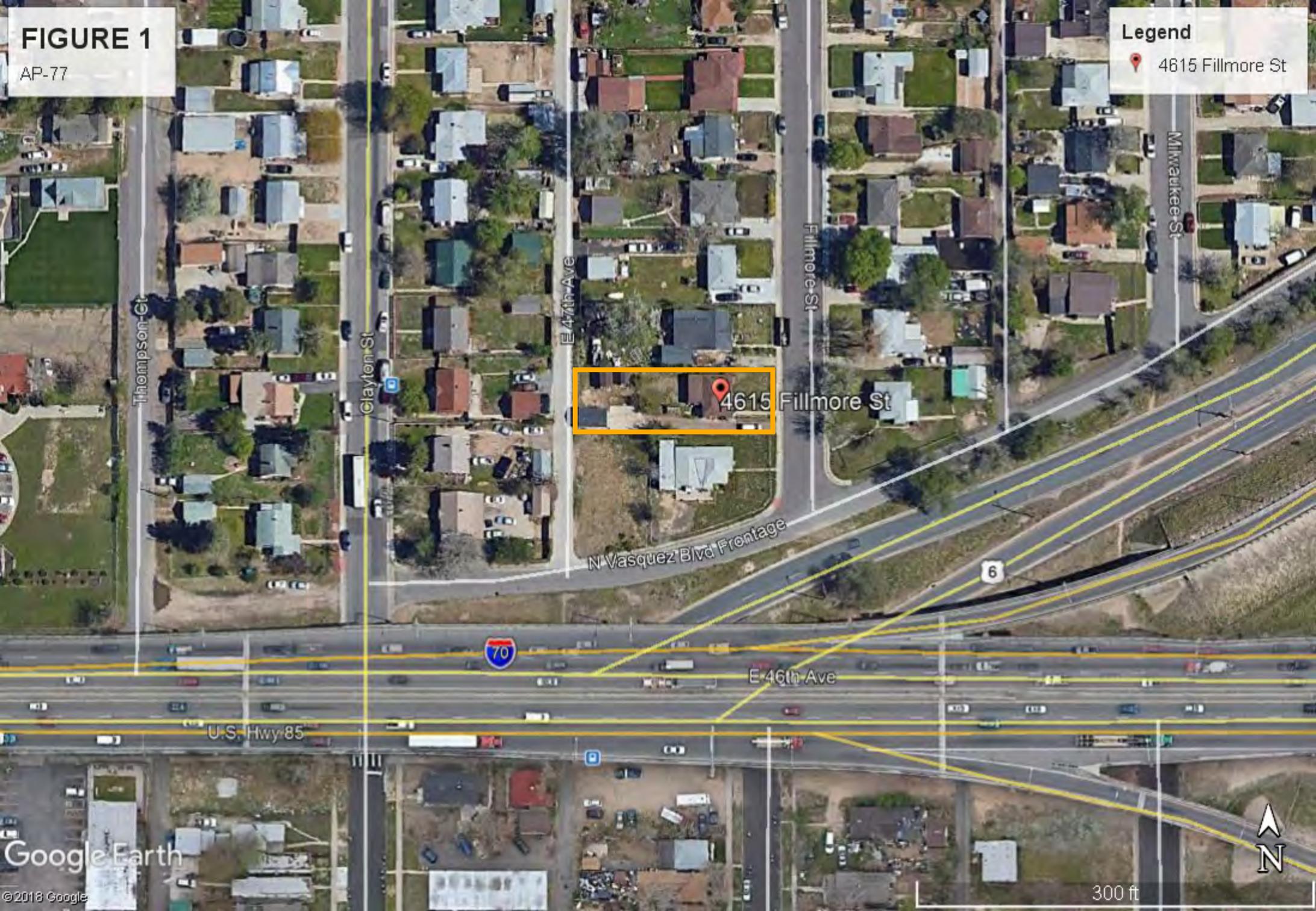
- Figure 1 Site Location
- Figure 2 Asbestos Bulk Sample Locations
- Figure 3 Lead-Based Paint Sample Locations
- Figure 4 Regulated Building Materials

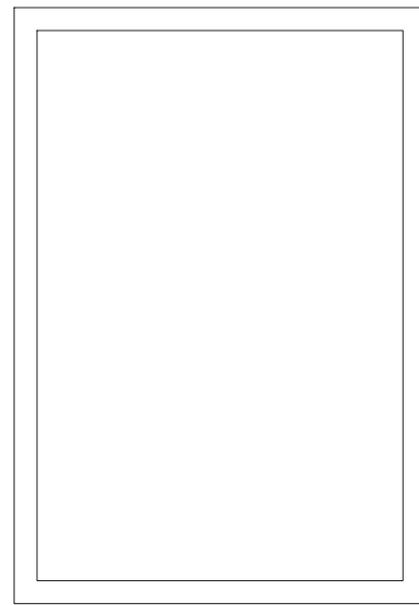
# FIGURE 1

AP-77

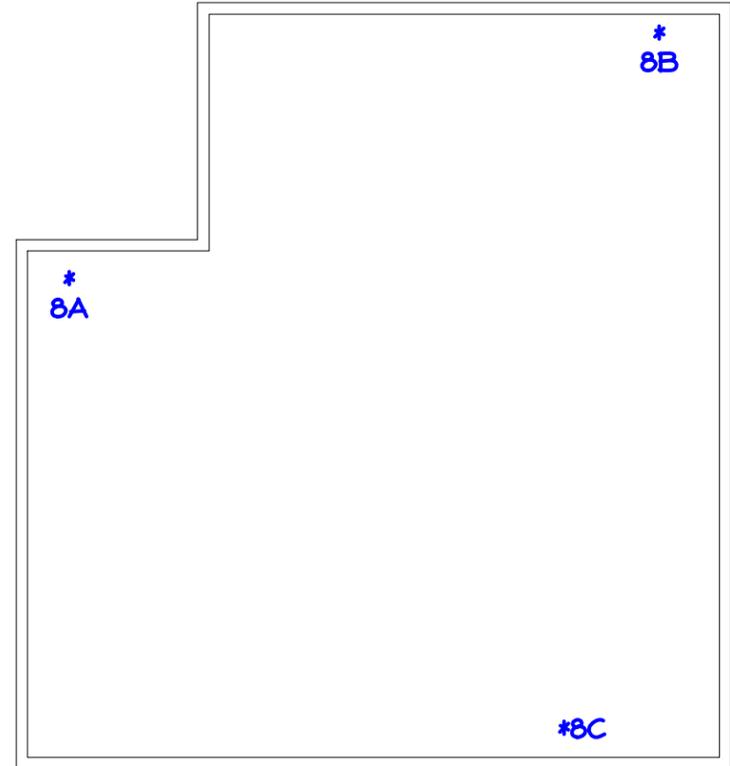
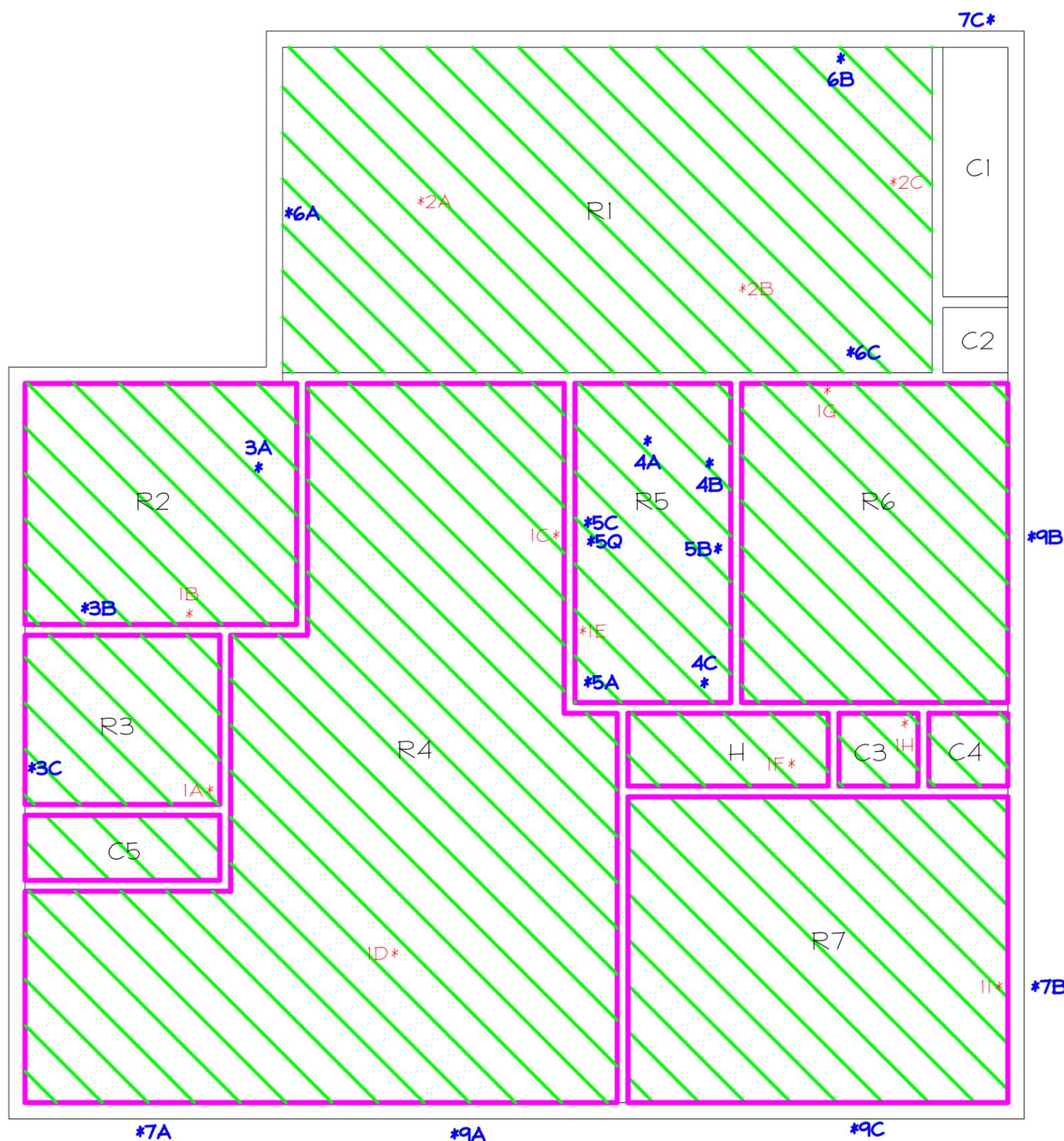
**Legend**

 4615 Fillmore St

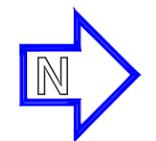




GARAGE



ROOF 1/8"=1'-0"

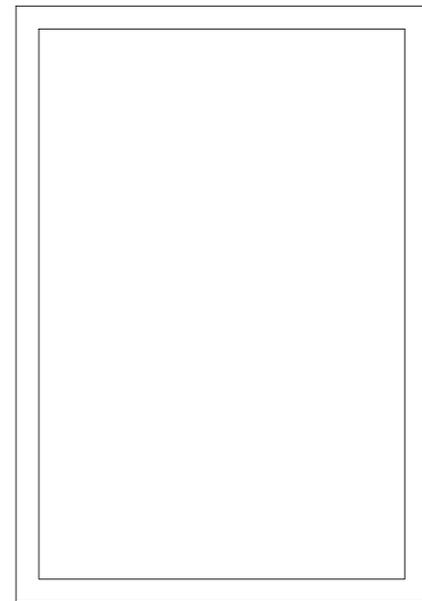


DR BY: R.A.  
 APPROVED: B.N.E.  
 SCALE: 1/4" = 1'-0"

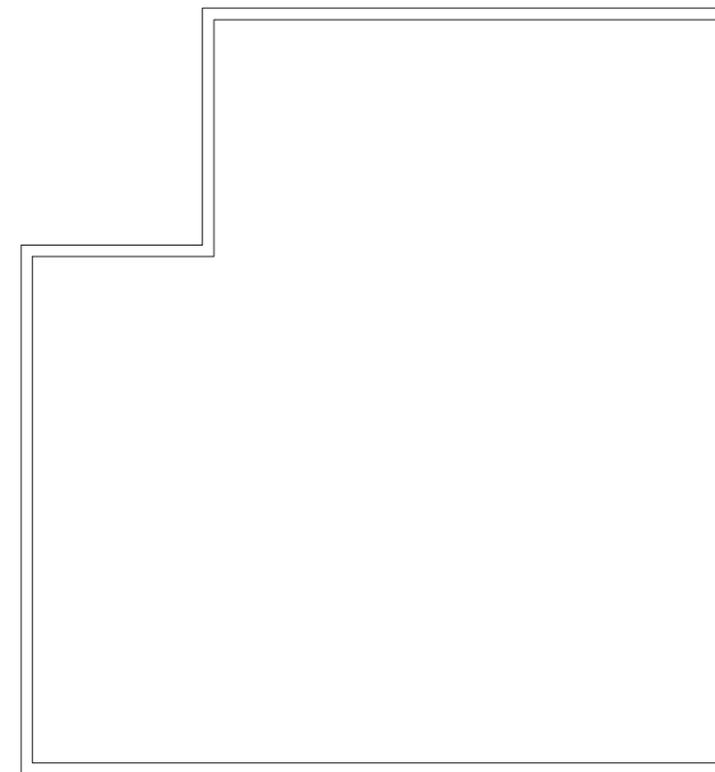
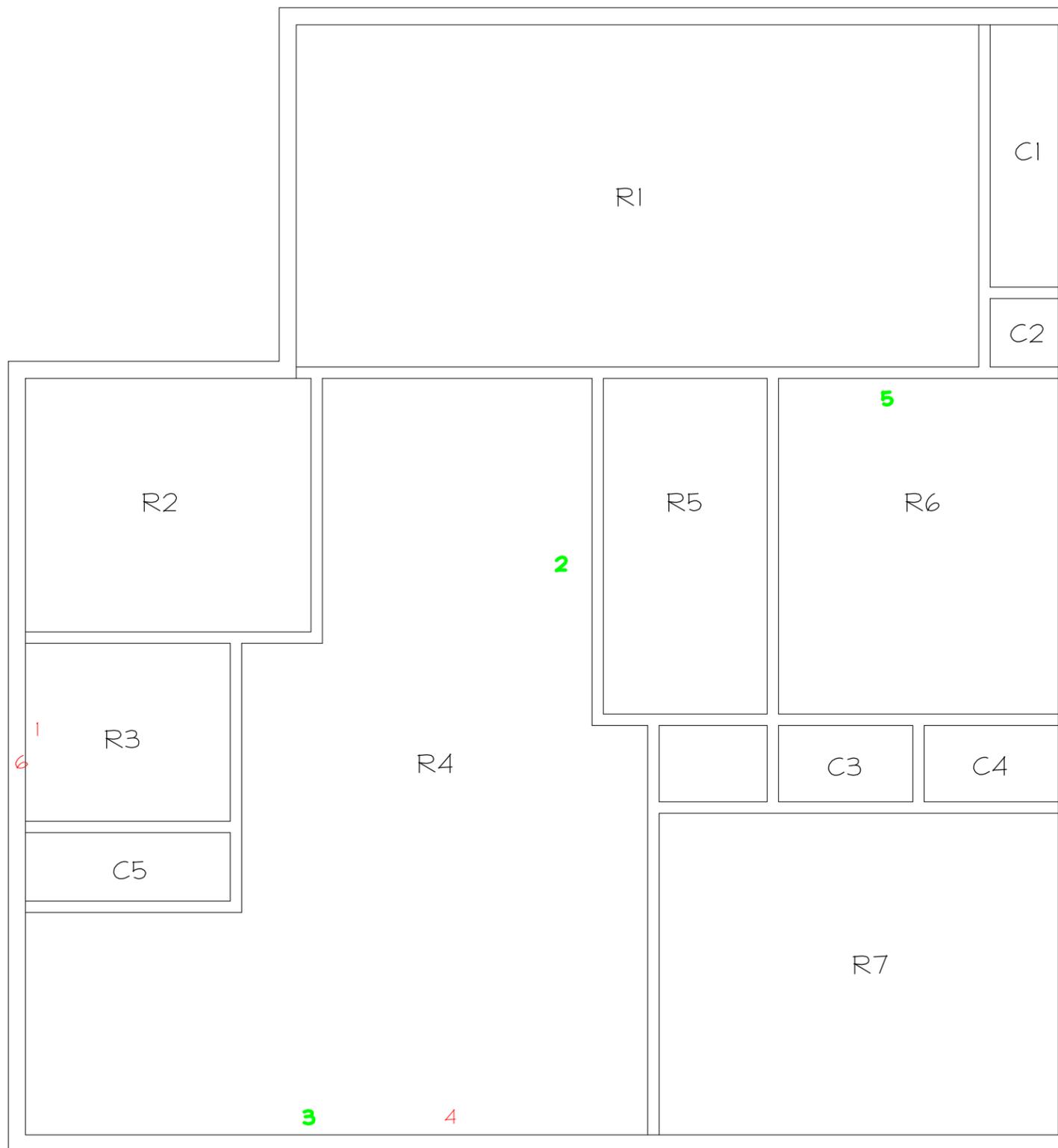
- R1 = Room Numbers
- 4B = Asbestos Samples (Detect)
- 4B = Asbestos Samples (Non-Detect)
- = Positive Asbestos at Ceiling
- = Positive Asbestos at Walls

**FIGURE 2 - Asbestos Bulk Sample Locations**  
 CENTRAL 70 - Structure Survey Assessment Map  
 AP-77  
 4615 Fillmore St., Denver, CO  
 May 31, 2018  
 APEC #: 18-3066

**ALL-PHASE**  
 ENVIRONMENTAL CONSULTANTS, INC.  
 721 W 9TH STREET  
 Pueblo, CO 81003 Ph: (719) 545-0375



GARAGE



ROOF 1/8"=1'-0"

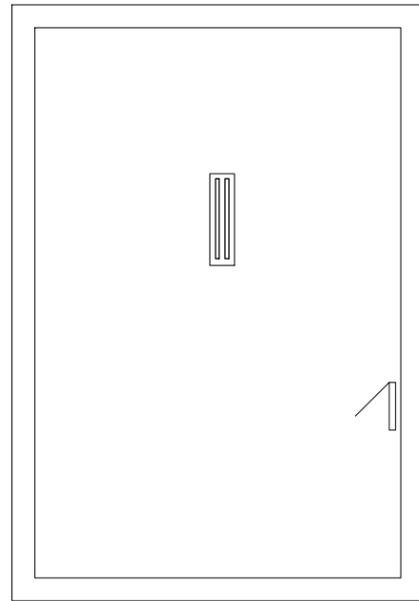


DR BY: R.A.  
 APPROVED: B.N.E.  
 SCALE: 1/8" = 1'-0"

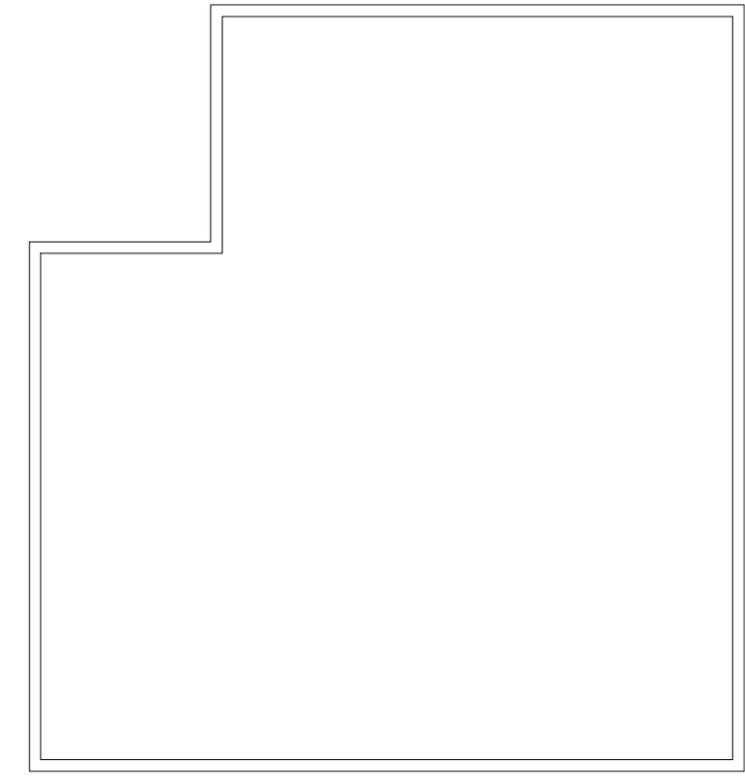
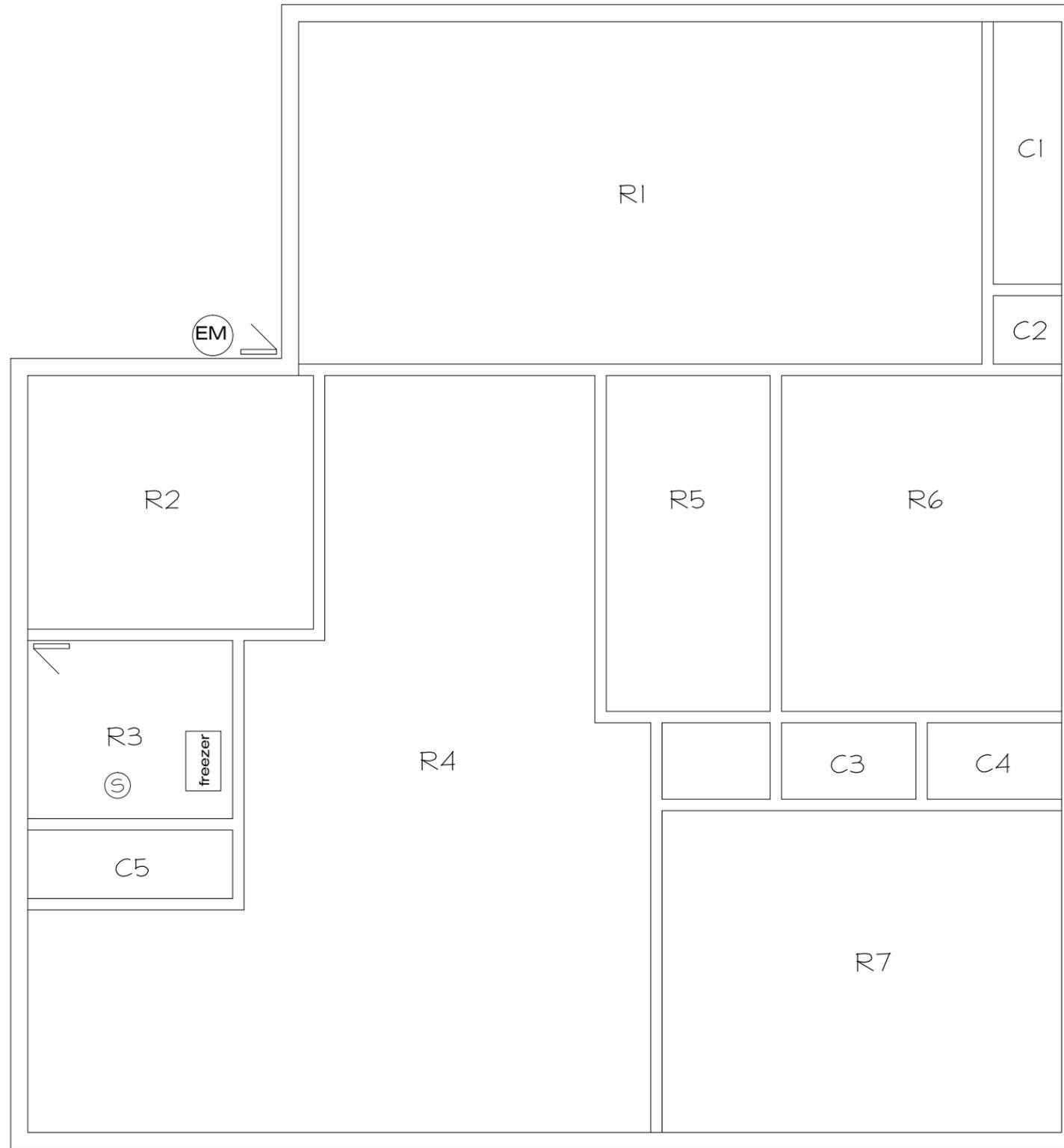
- R1 = Room Numbers
- 4 = Lead Base Paint (Detect)
- 4 = Lead Containing Paint (Detect)
- 4 = Lead Base Paint (Non-Detect)

**FIGURE 3 - Lead Based Paint Sample Location**  
**CENTRAL 70 - Structure Survey Assessment Map**  
**AP-77**  
 4615 Fillmore St., Denver, CO  
 May 31, 2018  
 APEC #: 18-3066

**ALL-PHASE**  
 ENVIRONMENTAL CONSULTANTS, INC.  
 721 W 9TH STREET  
 Pueblo, CO 81003 Ph: (719) 545-0375

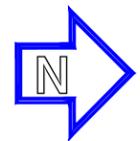


GARAGE



ROOF 1/8"=1'-0"

- R1 = Room Numbers
-  = Electrical Meter
-  = Freezer
-  = Smoke Detector
-  = Breaker Panel
-  = Fluorescent Lights
-  = Gas Meter



DR BY: R.A.  
 APPROVED: B.N.E.  
 SCALE: 1/8" = 1'-0"

**FIGURE 4 - Regulated Building Materials**  
 CENTRAL 70 - Structure Survey Assessment Map  
 AP-77  
 4615 Fillmore St., Denver, CO  
 May 31, 2018  
 APEC #: 18-3066



**ALL-PHASE**  
 ENVIRONMENTAL CONSULTANTS, INC.  
 721 W 9TH STREET  
 Pueblo, CO 81003 Ph: (719) 545-0375

**A**

ASBESTOS, LEAD AND  
LABORATORY CERTIFICATIONS





Colorado Department  
of Public Health  
and Environment

## ASBESTOS CERTIFICATION\*

This certifies that

**Logan Greenfield**

**Certification No.: 20715**

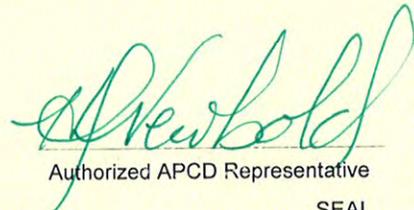
has met the requirements of 25-7-507, C.R.S. and Air Quality Control  
Commission Regulation No. 8, Part B, and is hereby certified by the  
state of Colorado in the following discipline:

**Building Inspector\***

**Issued: October 18, 2017**

**Expires: October 18, 2018**

*\* This certificate is valid only with the possession of a  
current Division-approved training course certification  
in the discipline specified above.*

  
Authorized APCD Representative  
SEAL



1775 West 55<sup>th</sup> Avenue  
Denver, CO 80221  
303.410.4941  
trainingchc.com



*Certifies that*

Logan Greenfield

20715

*Has Successfully Completed the EPA- Approved Annual Asbestos Refresher Training Course  
Under Section 206 of the Toxic Substance Control Act (TSCA), Title II.*

BUILDING INSPECTOR

Course Date: September 20, 2017  
Certificate No.: R17-1661-AI-CO  
No. of Hours: 4  
Expiration Date: September 20, 2018  
Certification not valid without watermark

A handwritten signature in black ink that reads "Frank Hulce".

Frank Hulce - Instructor

A handwritten signature in black ink that reads "Danaya Benedetto".

Danaya Benedetto- Training Program Manager



Colorado Department  
of Public Health  
and Environment

## LEAD-BASED PAINT CERTIFICATION\*

This certifies that

**Richard L. Ralston**

**Certification No.: 9130**

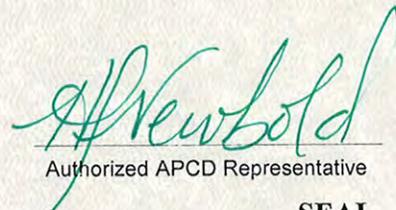
has met the requirements of 25-7-1104, C.R.S. and Air Quality Control  
Commission Regulation No. 19, and is hereby certified by the state of  
Colorado in the following discipline:

**Risk Assessor\***

**Issued: February 10, 2017**

**Expires: February 10, 2019**

*\* This certificate is valid only with the possession of a valid  
lead-based paint training certificate in the discipline specified  
above, issued by either a Colorado approved training provider,  
an EPA approved training provider, or a training provider  
approved by another EPA authorized program.*

  
Authorized APCD Representative

**SEAL**



1775 West 55<sup>th</sup> Avenue  
Denver, CO 80221  
303.410.4941  
trainingchc.com



*Certifies that*

Richard Ralston

*Has successfully completed the required training hours and passed the examination required by the Colorado Department of Public Health and Environment for:*

**Lead-Based Paint Risk Assessor Refresher**

*For the purposes of accreditation under the Colorado Department of Public Health and Environment Regulation No. 19 and other standard developed by EPA pursuant to Title IV of TSCA*

Course Date: April 6, 2016  
Certificate No.: R16-031-LRA-CO  
No. of Hours: 8  
Expiration Date: April 6, 2019

Certification not valid without watermark

*Luis E. Peon*

Luis Peon - Instructor

*Danaya Benedetto*

Danaya Benedetto - Training Program Manager

United States Department of Commerce  
National Institute of Standards and Technology



---

**Certificate of Accreditation to ISO/IEC 17025:2005**

---

NVLAP LAB CODE: 200828-0

**EMSL Analytical, Inc.**  
Denver, CO

*is accredited by the National Voluntary Laboratory Accreditation Program for specific services,  
listed on the Scope of Accreditation, for:*

**Asbestos Fiber Analysis**

*This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005.  
This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality  
management system (refer to joint ISO-ILAC-IAF Communiqué dated January 2009).*

---

2018-04-01 through 2019-03-31

*Effective Dates*



---

*Dana S. Haman*  
For the National Voluntary Laboratory Accreditation Program



**SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005**

**EMSL Analytical, Inc.**

1010 Yuma Street  
Denver, CO 80204  
Ms. Amanda Lang  
Phone: 303-740-5700  
Email: [alang@emsl.com](mailto:alang@emsl.com)  
<http://www.emsl.com>

**ASBESTOS FIBER ANALYSIS**

**NVLAP LAB CODE 200828-0**

**Bulk Asbestos Analysis**

<u>Code</u>	<u>Description</u>
18/A01	EPA -- 40 CFR Appendix E to Subpart E of Part 763, Interim Method of the Determination of Asbestos in Bulk Insulation Samples
18/A03	EPA 600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials

**Airborne Asbestos Analysis**

<u>Code</u>	<u>Description</u>
18/A02	U.S. EPA's "Interim Transmission Electron Microscopy Analytical Methods-Mandatory and Nonmandatory-and Mandatory Section to Determine Completion of Response Actions" as found in 40 CFR, Part 763, Subpart E, Appendix A.

For the National Voluntary Laboratory Accreditation Program



## AIHA Laboratory Accreditation Programs, LLC

*acknowledges that*

### **EMSL Analytical, Inc.**

200 Route 130 North, Cinnaminson, NJ 08077

Laboratory ID: 100194

along with all premises from which key activities are performed, as listed above, has fulfilled the requirements of the AIHA Laboratory Accreditation Programs (AIHA-LAP), LLC accreditation to the ISO/IEC 17025:2005 international standard, *General Requirements for the Competence of Testing and Calibration Laboratories* in the following:

#### **LABORATORY ACCREDITATION PROGRAMS**

- |   |   |
|---|---|
| <input checked="" type="checkbox"/> <b>INDUSTRIAL HYGIENE</b>         | Accreditation Expires: September 01, 2018 |
| <input checked="" type="checkbox"/> <b>ENVIRONMENTAL LEAD</b>         | Accreditation Expires: September 01, 2018 |
| <input checked="" type="checkbox"/> <b>ENVIRONMENTAL MICROBIOLOGY</b> | Accreditation Expires: September 01, 2018 |
| <input type="checkbox"/> <b>FOOD</b>                                  | Accreditation Expires:                    |
| <input type="checkbox"/> <b>UNIQUE SCOPES</b>                         | Accreditation Expires:                    |

Specific Field(s) of Testing (FoT)/Method(s) within each Accreditation Program for which the above named laboratory maintains accreditation is outlined on the attached **Scope of Accreditation**. Continued accreditation is contingent upon successful on-going compliance with ISO/IEC 17025:2005 and AIHA-LAP, LLC requirements. This certificate is not valid without the attached **Scope of Accreditation**. Please review the AIHA-LAP, LLC website ([www.aihaaccreditedlabs.org](http://www.aihaaccreditedlabs.org)) for the most current Scope.

*William Walsh, CIH*  
Chairperson, Analytical Accreditation Board

*Cheryl O. Morton*  
Managing Director, AIHA Laboratory Accreditation Programs, LLC

Revision 15: 03/30/2016

Date Issued: 08/31/2016



## AIHA Laboratory Accreditation Programs, LLC SCOPE OF ACCREDITATION

### EMSL Analytical, Inc.

200 Route 130 North, Cinnaminson, NJ 08077

Laboratory ID: **100194**

Issue Date: 08/31/2016

The laboratory is approved for those specific field(s) of testing/methods listed in the table below. Clients are urged to verify the laboratory's current accreditation status for the particular field(s) of testing/Methods, since these can change due to proficiency status, suspension and/or withdrawal of accreditation.

The EPA recognizes the AIHA-LAP, LLC ELLAP program as meeting the requirements of the National Lead Laboratory Accreditation Program (NLLAP) established under Title X of the Residential Lead-Based Paint Hazard Reduction Act of 1992 and includes paint, soil and dust wipe analysis. Air analysis is not included as part of the NLLAP.

### Environmental Lead Laboratory Accreditation Program (ELLAP)

**Initial Accreditation Date: 01/18/1995**

Field of Testing (FoT)	Technology sub-type/ Detector	Method	Method Description <i>(for internal methods only)</i>
<b>Paint</b>		EPA SW-846 3050B	
		EPA SW-846 7000B	
<b>Soil</b>		EPA SW-846 3050B	
		EPA SW-846 7000B	
<b>Settled Dust by Wipe</b>		EPA SW-846 3050B	
		EPA SW-846 7000B	
<b>Airborne Dust</b>		NIOSH 7082	
<b>Composited Wipes</b>		EPA SW-846 3050B	
		EPA SW-846 7000B	

A complete listing of currently accredited Environmental Lead laboratories is available on the AIHA-LAP, LLC website at: <http://www.aihaaccreditedlabs.org>

**B**

POSITIVE ASBESTOS & LEAD  
SAMPLE MATERIAL  
PHOTOGRAPHS





Heavy Textured Composite Board

Samples Represented –  
AP53-R6-TC1A  
AP53-R6-TC1B  
AP53-R5-TC1C  
AP53-R4-TC1D  
AP53-R4-TC1E



Swirl Textured Composite Board

Samples Represented –  
AP53-R6-TC3A  
AP53-R5-TC3B  
AP53-R4-TC3C



White - LCP

Samples Represented –  
4615-R3-L-1



Off-White - LBP

Sample Represented –  
4615-R4-L-4



Brown - LBP

Sample Represented –  
4615-R6-L-6



Fawn - LBP

Sample Represented –  
4615-Ex-L-7



Brown - LBP

Sample Represented –  
4615-Ex-L-8

C

LABORATORY RESULTS &  
CHAIN OF CUSTODY-  
ASBESTOS





# EMSL Analytical, Inc.

1010 Yuma Street Denver, CO 80204  
Tel/Fax: (303) 740-5700 / (303) 741-1400  
<http://www.EMSL.com> / [denverlab@emsl.com](mailto:denverlab@emsl.com)

**EMSL Order:** 221804000  
**Customer ID:** ALLP62  
**Customer PO:**  
**Project ID:**

**Attention:** Logan Greenfield  
All-Phase Environmental Consultants, Inc  
721 West 9th Street  
Pueblo, CO 81003  
**Phone:** (719) 250-0036  
**Fax:** (719) 542-2807  
**Received Date:** 06/04/2018 9:45 PM  
**Analysis Date:** 06/08/2018 - 06/09/2018  
**Collected Date:**  
**Project:** 18-3066-CDOT-A-AP77

## Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
4615F-R3-TD1A-Te xture 221804000-0001	Light textured drywall	White Fibrous Heterogeneous		20% Ca Carbonate 77% Non-fibrous (Other)	3% Chrysotile
Inseparable paint / coating layer included in analysis					
4615F-R3-TD1A-Ta pe 221804000-0001A	Light textured drywall	Tan Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (Other)	None Detected
4615F-R3-TD1A-Joi nt Compound 221804000-0001B	Light textured drywall	White Fibrous Homogeneous		20% Ca Carbonate 77% Non-fibrous (Other)	3% Chrysotile
4615F-R3-TD1A-Dr ywall 221804000-0001C	Light textured drywall	Brown/White Fibrous Homogeneous	15% Cellulose	70% Gypsum 15% Non-fibrous (Other)	None Detected
4615F-R2-TD1B-TeX ture 221804000-0002	Light textured drywall	White/Pink Fibrous Heterogeneous		20% Ca Carbonate 78% Non-fibrous (Other)	2% Chrysotile
Inseparable paint / coating layer included in analysis					
4615F-R2-TD1B-Dry wall 221804000-0002A	Light textured drywall	Brown/White Fibrous Homogeneous	15% Cellulose	70% Gypsum 15% Non-fibrous (Other)	None Detected
4615F-R4-TD1C-TeX ture 221804000-0003	Light textured drywall	White/Green/Beige Fibrous Heterogeneous		20% Ca Carbonate 77% Non-fibrous (Other)	3% Chrysotile
Inseparable paint / coating layer included in analysis					
4615F-R4-TD1C-Tap e 221804000-0003A	Light textured drywall	Tan Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (Other)	None Detected
4615F-R4-TD1C-Joi nt Compound 221804000-0003B	Light textured drywall	White Fibrous Homogeneous		20% Ca Carbonate 77% Non-fibrous (Other)	3% Chrysotile

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Samples analyzed by EMSL Analytical, Inc. Denver, CO NVLAP Lab Code 200828-0

Initial report from: 06/09/2018 13:05:35



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**EMSL Order:** 221804000  
**Customer ID:** ALLP62  
**Customer PO:**  
**Project ID:**

**Attention:** Logan Greenfield  
All-Phase Environmental Consultants, Inc  
721 West 9th Street  
Pueblo, CO 81003  
**Phone:** (719) 250-0036  
**Fax:** (719) 542-2807  
**Received Date:** 06/04/2018 9:45 PM  
**Analysis Date:** 06/08/2018 - 06/09/2018  
**Collected Date:**  
**Project:** 18-3066-CDOT-A-AP77

## Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
4615F-R4-TD1C-Dry wall 221804000-0003C	Light textured drywall	Brown/White Fibrous Homogeneous	15% Cellulose	70% Gypsum 15% Non-fibrous (Other)	None Detected
4615F-R4-TD1D-Texture 221804000-0004	Light textured drywall	White/Blue Fibrous Heterogeneous		20% Ca Carbonate 78% Non-fibrous (Other)	2% Chrysotile
Inseparable paint / coating layer included in analysis					
4615F-R4-TD1D-Dry wall 221804000-0004A	Light textured drywall	Brown/White Fibrous Homogeneous	15% Cellulose	70% Gypsum 15% Non-fibrous (Other)	None Detected
4615F-R5-TD1E-Texture 221804000-0005	Light textured drywall	White/Green Fibrous Heterogeneous		20% Ca Carbonate 78% Non-fibrous (Other)	2% Chrysotile
Inseparable paint / coating layer included in analysis					
4615F-R5-TD1E-Dry wall 221804000-0005A	Light textured drywall	Brown/White Fibrous Homogeneous	15% Cellulose	70% Gypsum 15% Non-fibrous (Other)	None Detected
4615F-H-TD1F-Texture 221804000-0006	Light textured drywall	Tan/Beige Non-Fibrous Heterogeneous		15% Ca Carbonate 83% Non-fibrous (Other)	2% Chrysotile
4615F-H-TD1F-Dry wall 221804000-0006A	Light textured drywall	Beige Fibrous Homogeneous	15% Cellulose	65% Gypsum 20% Non-fibrous (Other)	None Detected
4615F-R6-TD1G-Texture 221804000-0007	Light textured drywall	Tan/Green Non-Fibrous Heterogeneous		98% Non-fibrous (Other)	2% Chrysotile
Inseparable paint / coating layer included in analysis					
4615F-R6-TD1G-Dry wall 221804000-0007A	Light textured drywall	Beige Fibrous Homogeneous	15% Cellulose	65% Gypsum 20% Non-fibrous (Other)	None Detected

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## Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
4615F-C3-TD1H-Dry wall 221804000-0008	Light textured drywall	White Non-Fibrous Heterogeneous	15% Cellulose	65% Gypsum 20% Non-fibrous (Other)	None Detected
Sample bag contains paint and drywall only. Inseparable paint / coating layer included in analysis					
4615F-R7-TD11 221804000-0009	Light textured drywall	White/Beige Fibrous Heterogeneous	15% Cellulose	65% Gypsum 20% Non-fibrous (Other)	None Detected
Sample bag contains paint and drywall only. Inseparable paint / coating layer included in analysis					
4615F-R1-TD2A-Texture 221804000-0010	Spray textured drywall	White Non-Fibrous Heterogeneous		20% Ca Carbonate 78% Non-fibrous (Other)	2% Chrysotile
Inseparable paint / coating layer included in analysis					
4615F-R1-TD2A-Drywall 221804000-0010A	Spray textured drywall	Brown/White Fibrous Homogeneous	15% Cellulose	70% Gypsum 15% Non-fibrous (Other)	None Detected
4615F-R1-TD2B-Texture 221804000-0011	Spray textured drywall	White Non-Fibrous Heterogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	<1% Chrysotile
Inseparable paint / coating layer included in analysis					
4615F-R1-TD2B-Tape 221804000-0011A	Spray textured drywall	Tan Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (Other)	None Detected
4615F-R1-TD2B-Joint Compound 221804000-0011B	Spray textured drywall	White Non-Fibrous Homogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	<1% Chrysotile
4615F-R1-TD2B-Drywall 221804000-0011C	Spray textured drywall	Brown/White Fibrous Homogeneous	15% Cellulose	70% Gypsum 15% Non-fibrous (Other)	None Detected

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## Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
4615F-R1-TD2C-Texture 221804000-0012	Spray textured drywall	White Non-Fibrous Heterogeneous		15% Ca Carbonate 83% Non-fibrous (Other)	2% Chrysotile
Inseparable paint / coating layer included in analysis					
4615F-R1-TD2C-Drywall 221804000-0012A	Spray textured drywall	White Fibrous Homogeneous	15% Cellulose	65% Gypsum 20% Non-fibrous (Other)	None Detected
4615F-R2-L3A 221804000-0013	Flower pattern linoleum	Tan/White Non-Fibrous Homogeneous		35% Ca Carbonate 65% Non-fibrous (Other)	None Detected
Result includes a small amount of inseparable attached clear adhesive					
4615F-R2-L3B 221804000-0014	Flower pattern linoleum	Tan/White Non-Fibrous Homogeneous		35% Ca Carbonate 65% Non-fibrous (Other)	None Detected
Result includes a small amount of inseparable attached clear adhesive					
4615F-R2-L3C-Flooring 221804000-0015	Flower pattern linoleum	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
4615F-R2-L3C-Mastic 221804000-0015A	Flower pattern linoleum	Clear Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
4615F-R2-L3C-Backing 221804000-0015B	Flower pattern linoleum	Brown Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (Other)	None Detected
4615F-R5-L4A-Linoleum 221804000-0016	Wood pattern linoleum	Brown/White Fibrous Homogeneous	25% Cellulose 5% Glass	15% Ca Carbonate 55% Non-fibrous (Other)	None Detected
4615F-R5-L4A-Mastic 221804000-0016A	Wood pattern linoleum	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

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## Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
4615F-R5-L4A-Lev eler 221804000-0016B	Wood pattern linoleum	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
4615F-R5-L4B-Linol eum 221804000-0017	Wood pattern linoleum	Brown/White Fibrous Homogeneous	25% Cellulose 5% Glass	20% Ca Carbonate 50% Non-fibrous (Other)	None Detected
4615F-R5-L4B-Mast ic 221804000-0017A	Wood pattern linoleum	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
4615F-R5-L4C-Linol eum 221804000-0018	Wood pattern linoleum	Brown/Tan Fibrous Homogeneous	25% Cellulose 10% Glass	65% Non-fibrous (Other)	None Detected
4615F-R5-L4C-Mast ic 221804000-0018A	Wood pattern linoleum	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
4615F-R5-PM5A-Pa neling 221804000-0019	Panel/Mastic	Brown/White Fibrous Homogeneous	90% Cellulose	10% Non-fibrous (Other)	None Detected
4615F-R5-PM5A-Ma stic 221804000-0019A	Panel/Mastic	Tan Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
4615F-R5-PM5B-Pa neling 221804000-0020	Panel/Mastic	Brown/White Fibrous Homogeneous	90% Cellulose	10% Non-fibrous (Other)	None Detected
4615F-R5-PM5B-Ma stic 221804000-0020A	Panel/Mastic	Tan Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
4615F-R5-PM5Q-Pa neling 221804000-0021	Panel/Mastic	Brown/Beige Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (Other)	None Detected

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## Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
4615F-R5-PM5Q-Ma stic 221804000-0021A	Panel/Mastic	Brown/Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
4615F-R5-PM5C-Pa neling 221804000-0022	Panel/Mastic	Brown/White Fibrous Homogeneous	90% Cellulose	10% Non-fibrous (Other)	None Detected
4615F-R5-PM5C-Ma stic 221804000-0022A	Panel/Mastic	Tan Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
4615F-R1-M6A-Mas tic 221804000-0023	Plain drywall/mastic	Tan Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
4615F-R1-M6A-Dry wall 221804000-0023A	Plain drywall/mastic	Brown/White Fibrous Homogeneous	15% Cellulose	70% Gypsum 15% Non-fibrous (Other)	None Detected
4615F-R1-M6B-Mas tic 221804000-0024	Plain drywall/mastic	Tan Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
4615F-R1-M6B-Dry wall 221804000-0024A	Plain drywall/mastic	Brown/White Fibrous Homogeneous	15% Cellulose	70% Gypsum 15% Non-fibrous (Other)	None Detected
4615F-R1-M6C-Mas tic 221804000-0025	Plain drywall/mastic	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
4615F-R1-M6C-Dry wall 221804000-0025A	Plain drywall/mastic	White Fibrous Homogeneous	15% Cellulose	65% Gypsum 20% Non-fibrous (Other)	None Detected
4615F-EX-VB7A 221804000-0026	Vapor Barrier	Black Fibrous Homogeneous	70% Cellulose	30% Non-fibrous (Other)	None Detected

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## Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
4615F-EX-VB7B 221804000-0027	Vapor Barrier	Black Fibrous Homogeneous	70% Cellulose	30% Non-fibrous (Other)	None Detected
4615F-EX-VB7C 221804000-0028	Vapor Barrier	Black Fibrous Homogeneous	65% Cellulose	35% Non-fibrous (Other)	None Detected
4615F-EX-R8A-Shingle 221804000-0029	Roofing	Brown/Black Fibrous Homogeneous	20% Glass	10% Ca Carbonate 70% Non-fibrous (Other)	None Detected
4615F-EX-R8A-Tar Paper 221804000-0029A	Roofing	Black Fibrous Homogeneous	70% Cellulose	30% Non-fibrous (Other)	None Detected
4615F-EX-R8B-Shingle 221804000-0030	Roofing	Brown/Black Fibrous Homogeneous	20% Glass	10% Ca Carbonate 70% Non-fibrous (Other)	None Detected
4615F-EX-R8B-Mastic 221804000-0030A	Roofing	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
4615F-EX-R8B-Tar Felt 221804000-0030B	Roofing	Black Fibrous Homogeneous	70% Cellulose	30% Non-fibrous (Other)	None Detected
4615FEX-R8C-Shingle 221804000-0031	Roofing	Silver Fibrous Homogeneous	10% Glass	90% Non-fibrous (Other)	None Detected
4615FEX-R8C-Tar Felt 221804000-0031A	Roofing	Black Fibrous Homogeneous	65% Cellulose	35% Non-fibrous (Other)	None Detected
4615F-EX-WG9A 221804000-0032	Window glazing	White Non-Fibrous Homogeneous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected

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## Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
4615F-EX-WG9B 221804000-0033	Window glazing	White Non-Fibrous Homogeneous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected
4615F-EX-WG9C 221804000-0034	Window glazing	White Non-Fibrous Homogeneous		25% Ca Carbonate 75% Non-fibrous (Other)	None Detected

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The samples in this report were submitted to EMSL for analysis by Asbestos Analysis of Bulk materials via EPA/600 (0513) Method using Polarized Light Microscopy. The reference number for these samples is the EMSL Order ID above. Please use this reference number when calling about these samples.

### Report Comments:

Sample Receipt Date:	06/04/2018	Sample Receipt Time:	9:45 PM
Analysis Completed Date:	06/09/2018	Analysis Completed Time:	12:57 PM

### **Analyst(s):**

Stuart Printz PLM (46)

Timothy Kleehammer PLM (21)

### **Samples Reviewed and approved by:**

Amanda Lang, Asbestos Laboratory Manager  
or other approved signatory

EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. Non-friable organically bound materials present a problem matrix and therefore EMSL recommends gravimetric reduction prior to analysis. Samples received in good condition unless otherwise noted. Estimated accuracy, precision and uncertainty data available upon request. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample. Reporting limit is 1%

Samples analyzed by EMSL Analytical, Inc. Denver, CO NVLAP Lab Code 200828-0

Initial report from: 06/09/2018 13:05:35



EMSL ANALYTICAL, INC.  
LABORATORY • PRODUCTS • TRAINING

**Asbestos Chain of Custody**  
EMSL Order Number (Lab Use Only)

221804000

Denver, CO 80204  
PHONE (303) 740-5700  
FAX (303) 741-1400

Company: All-Phase Environmental Consultants, Inc.		EMSL-Bill to: <input type="checkbox"/> Different <input checked="" type="checkbox"/> Same <small>If Bill to is Different note instructions in Comments**</small>	
Street: 721 W. 9th Street		Third Party Billing requires written authorization from third party	
City: Pueblo	State/Province: CO	Zip/Postal Code: 81003	Country: United States
Report To (Name): Logan Greenfield		Telephone #: 719-250-0036	
Email Address: logan@allphaseenvironmental.com		Fax #:	
Project Name/Number: 18-3066-CDDT-A-AP77		Purchase Order: <input type="checkbox"/> FAX <input checked="" type="checkbox"/> E-mail <input type="checkbox"/> Mail	
U.S. State Samples Taken: CO		Connecticut Samples: <input type="checkbox"/> Commercial <input type="checkbox"/> Residential	

**Turnaround Time (TAT) Options\* - Please Check**

3 Hour  6 Hour  24 Hour  48 Hour  72 Hour  96 Hour  1 Week  2 Week

\*For TEM Air 3 hr through 6 hr, please call ahead to schedule. There is a premium charge for 3 Hour TEM AHERA or EPA Level II TAT. You will be asked to sign an authorization form for this service. Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide.

<b>PCM - Air</b> <input type="checkbox"/> Check if samples are from NY <input type="checkbox"/> NIOSH 7400 <input type="checkbox"/> w/ OSHA 8hr. TWA <b>PLM - Bulk (reporting limit)</b> <input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%) <input type="checkbox"/> PLM EPA NOB (<1%) Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%) Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%) <input type="checkbox"/> NYS 198.1 (friable in NY) <input type="checkbox"/> NYS 198.6 NOB (non-friable-NY) <input type="checkbox"/> NIOSH 9002 (<1%)	<b>TEM - Air</b> <input type="checkbox"/> 4-4.5hr TAT (AHERA only) <input type="checkbox"/> AHERA 40 CFR, Part 763 <input type="checkbox"/> NIOSH 7402 <input type="checkbox"/> EPA Level II <input type="checkbox"/> ISO 10312 <b>TEM - Bulk</b> <input type="checkbox"/> TEM EPA NOB <input type="checkbox"/> NYS NOB 198.4 (non-friable-NY) <input type="checkbox"/> Chatfield SOP <input type="checkbox"/> TEM Mass Analysis-EPA 600 sec 2.5 <b>TEM - Water: EPA 100.2</b> Fibers >10µm <input type="checkbox"/> Waste <input type="checkbox"/> Drinking All Fiber Sizes <input type="checkbox"/> Waste <input type="checkbox"/> Drinking	<b>TEM- Dust</b> <input type="checkbox"/> Microvac - ASTM D 5755 <input type="checkbox"/> Wipe - ASTM D6480 <input type="checkbox"/> Carpet Sonication (EPA 600/J-93/167) <b>Soil/Rock/Vermiculite</b> <input type="checkbox"/> PLM CARB 435 - A (0.25% sensitivity) <input type="checkbox"/> PLM CARB 435 - B (0.1% sensitivity) <input type="checkbox"/> TEM CARB 435 - B (0.1% sensitivity) <input type="checkbox"/> TEM CARB 435 - C (0.01% sensitivity) <input type="checkbox"/> TEM Qual via Filtration Technique <input type="checkbox"/> TEM Qual. via Drop-Mount Technique <b>Other:</b> <input type="checkbox"/>
---	---	--

Check For Positive Stop - Clearly Identify Homogenous Group      Filter Pore Size (Air Samples):  0.8µm  0.45µm

Samplers Name: Logan Greenfield      Samplers Signature: [Signature]

Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
4615F-R3-TDIA	Light textured Drywall	—	5-31-18
4615F-R2-TDIB	↓	—	↓
4615F-R4-TDIC		—	
4615F-R4-TDID		—	
4615F-R5-TDIE		—	
4615F-H-TDIF		—	
4615F-R6-TDIG		—	
4615F-C3-TDIH		—	

Client Sample # (s):	Total # of Samples: <b>34</b>	
Relinquished (Client): <u>[Signature]</u>	Date: <u>6-1-18</u>	Time: <u>4:30</u>
Received (Lab): <u>MR</u>	Date: <u>6/4/18</u>	Time: <u>9:45am</u>
Comments/Special Instructions: <u>EFE 79547364 8143 313</u>		



EMSL ANALYTICAL, INC  
LABORATORY PRODUCTS TRAINING

Asbestos Chain of Custody  
EMSL Order Number (Lab Use Only)

221804000

Denver, CO 8 0204  
Phone (303) 740-5700  
Fax (303) 741-1400

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
4615F-R7-TD1E	Light textured Drywall	—	5-31-18
4615F-R1-TD2A	Spray textured Drywall	—	↓
4615F-R1-TD2B		—	
4615F-R1-TD2C		—	
4615F-R2-L3A	Flower Pattern Linoleum	—	
4615F-R2-L3B		—	
4615F-R3-L3C		—	
4615F-R5-L4A	Wood Pattern Linoleum	—	
4615F-R5-L4B		—	
4615F-R5-L4C		—	
4615F-R5-PM5A	Panel/Mastic	—	
4615F-R5-PM5B		—	
4615F-R5-PM5Q		—	
4615F-R5-PM5C		—	
4615F-R1-M6A	Plain Drywall/Mastic	—	
4615F-R1-M6B		—	
4615F-R1-M6C		—	
4615F-EX-VB7A	Vapor Barrier	—	
4615F-EX-VB7B		—	
4615F-EX-VB7C		—	
4615F-EX-R8A	Roofing	—	
4615F-EX-R8B		—	
4615F-EX-R8C		—	
4615F-EX-WG9A	Window Glazing	—	
*Comments/Special Instructions:			



EMSL ANALYTICAL, INC  
LABORATORY PRODUCTS TRAINING

### Asbestos Chain of Custody

EMSL Order Number (Lab Use Only)

221804000

Denver, CO 80204  
(303) 740-5700  
(303) 741-1400

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
4615F-EX-WG9B	Window Glazing	—	5-31-18
4615F-EX-WG9C	↓	—	↓
/			
*Comments/Special Instructions:			

**D**

LABORATORY RESULTS &  
CHAIN OF CUSTODY -  
LEAD & TCLP





# EMSL Analytical, Inc.

200 Route 130 North, Cinnaminson, NJ 08077

Phone/Fax: (856) 303-2500 / (856) 786-5974

<http://www.EMSL.com>

[cinnaminsonleadlab@emsl.com](mailto:cinnaminsonleadlab@emsl.com)

EMSL Order:	201805983
CustomerID:	ALLP62
CustomerPO:	
ProjectID:	

Attn: **Richard Ralston**  
**All-Phase Environmental Consultants, Inc**  
**721 West 9th Street**  
**Pueblo, CO**

Phone: (719) 225-6953  
 Fax: (719) 542-2807  
 Received: 06/04/18 10:20 AM  
 Collected: 5/31/2018

Project: **18-3066-C70-L-AP**

## Test Report: Lead in Paint Chips by Flame AAS (SW 846 3050B/7000B)\*

<i>Client Sample Description</i>	<i>Lab ID</i>	<i>Collected</i>	<i>Analyzed</i>	<i>Weight</i>	<i>Lead Concentration</i>
4615F-R3-L-1 Site: Room 3 Door Frame - White	201805983-0001	5/31/2018	6/6/2018	0.2533 g	0.23 % wt
4615-R4-L-2 Site: Room 4 Drywall - Cream	201805983-0002	5/31/2018	6/6/2018	0.2576 g	<0.0080 % wt
4615-R4-L-3 Site: Room 4 Drywall - White	201805983-0003	5/31/2018	6/6/2018	0.2550 g	<0.0080 % wt
4615-R4-L-4 Site: Room 4 - Wood Window - Off White	201805983-0004	5/31/2018	6/6/2018	0.2548 g	1.0 % wt
4615-R6-L-5 Site: Room 6 - Drywall - Peach	201805983-0005	5/31/2018	6/6/2018	0.2588 g	<0.0080 % wt
4615-R6-L-6 Site: Room 3 - Exit Door - Wood - Brown	201805983-0006	5/31/2018	6/6/2018	0.2501 g	2.1 % wt
4615-Ex-L-7 Site: Exterior - Window Frame - Wood - Fawn	201805983-0007	5/31/2018	6/6/2018	0.2938 g	5.6 % wt
4615-Ex-L-8 Site: Exterior - Window Frame - Wood - Brown	201805983-0008	5/31/2018	6/6/2018	0.2581 g	1.7 % wt

Phillip Worby, Lead Laboratory Manager  
or other approved signatory

\*Analysis following Lead in Paint by EMSL SOP/Determination of Environmental Lead by FLAA. Reporting limit is 0.008 % wt based on the minimum sample weight per our SOP. Unless noted, results in this report are not blank corrected. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities. Samples received in good condition unless otherwise noted. "<" (less than) result signifies that the analyte was not detected at or above the reporting limit. Measurement of uncertainty is available upon request. The QC data associated with the sample results included in this report meet the recovery and precision requirements unless specifically indicated otherwise. Definitions of modifications are available upon request.

Samples analyzed by EMSL Analytical, Inc. Cinnaminson, NJ NELAP Certifications: NJ 03036, NY 10872, PA 68-00367, AIHA-LAP, LLC ELLAP 100194, A2LA 2845.01

Initial report from 06/07/2018 09:31:34



EMSL ANALYTICAL, INC.  
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# Lead (Pb) Chain of Custody

EMSL Order ID (Lab Use Only):

201805983

Cinnaminson, NJ 08077  
PHONE: 1-800-220-3675  
FAX: (856) 786-5974

Company: All-Phase Environmental Consultants, Inc		EMSL-Bill to: <input checked="" type="checkbox"/> Same <input type="checkbox"/> Different If Bill to is Different note instructions in Comments**		
Street: 721 West 9th Street		Third Party Billing requires written authorization from third party		
City: Pueblo	State/Province: CO	Zip/Postal Code: 81003	Country: US	
Report To (Name): Richard Ralston		Telephone #: 7192256953		
Email Address: rick@allphaseenvironmental.com		Fax #: 719-542-2807	Purchase Order:	
Project Name/Number: 18-3066-C70-L-AP-		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email		
U.S. State Samples Taken: CO		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt		
<b>Turnaround Time (TAT) Options* - Please Check</b>				
<input type="checkbox"/> 3 Hour	<input type="checkbox"/> 6 Hour	<input type="checkbox"/> 24 Hour	<input type="checkbox"/> 48 Hour <input checked="" type="checkbox"/> 72 Hour <input type="checkbox"/> 96 Hour <input type="checkbox"/> 1 Week <input type="checkbox"/> 2 Week	
<small>*Analysis completed in accordance with EMSL's Terms and Conditions located in the Price Guide</small>				
Matrix	Method	Instrument	Reporting Limit	Check
Chips <input checked="" type="checkbox"/> % by wt. <input type="checkbox"/> mg/cm <sup>2</sup> <input type="checkbox"/> ppm (mg/kg)	SW846-7000B	Flame Atomic Absorption	0.01%	<input checked="" type="checkbox"/>
Air	NIOSH 7082	Flame Atomic Absorption	4 µg/filter	<input type="checkbox"/>
	NIOSH 7105	Graphite Furnace AA	0.03 µg/filter	<input type="checkbox"/>
	NIOSH 7300M/NIOSH 7303	ICP-OES	0.5 µg/filter	<input type="checkbox"/>
Wipe* <input type="checkbox"/> ASTM <input type="checkbox"/> non ASTM *if no box checked, non-ASTM Wipe assumed	SW846-7000B	Flame Atomic Absorption	10 µg/wipe	<input type="checkbox"/>
	SW846-6010B or C	ICP-OES	1.0 µg/wipe	<input type="checkbox"/>
TCLP	SW846-1311/7000B/SM 3111B	Flame Atomic Absorption	0.4 mg/L (ppm)	<input type="checkbox"/>
	SW846-1311/SW846-6010B or C	ICP-OES	0.1 mg/L (ppm)	<input type="checkbox"/>
SPLP	SW846-1312/7000B/SM 3111B	Flame Atomic Absorption	0.4 mg/L (ppm)	<input type="checkbox"/>
	SW846-1312/SW846-6010B or C	ICP-OES	0.1 mg/L (ppm)	<input type="checkbox"/>
TTLC	22 CCR App. II, 7000B/7420	Flame Atomic Absorption	40 mg/kg (ppm)	<input type="checkbox"/>
	22 CCR App. II, SW846-6010B or C	ICP-OES	2 mg/kg (ppm)	<input type="checkbox"/>
STLC	22 CCR App. II, 7000B/7420	Flame Atomic Absorption	0.4 mg/L (ppm)	<input type="checkbox"/>
	22 CCR App. II, SW846-6010B or C	ICP-OES	0.1 mg/L (ppm)	<input type="checkbox"/>
Soil	SW846-7000B	Flame Atomic Absorption	40 mg/kg (ppm)	<input type="checkbox"/>
	SW846-6010B or C	ICP-OES	2 mg/kg (ppm)	<input type="checkbox"/>
Wastewater Unpreserved <input type="checkbox"/> Preserved with HNO <sub>3</sub> pH < 2 <input type="checkbox"/>	SM3111B/SW846-7000B	Flame Atomic Absorption	0.4 mg/L (ppm)	<input type="checkbox"/>
	EPA 200.9	Graphite Furnace AA	0.003 mg/L (ppm)	<input type="checkbox"/>
	EPA 200.7	ICP-OES	0.020 mg/L (ppm)	<input type="checkbox"/>
Drinking Water Unpreserved <input type="checkbox"/> Preserved with HNO <sub>3</sub> pH < 2 <input type="checkbox"/>	EPA 200.8	ICP-MS	0.001 mg/L (ppm)	<input type="checkbox"/>
	EPA 200.9	Graphite Furnace AA	0.003 mg/L (ppm)	<input type="checkbox"/>
	EPA 200.5	ICP-OES	0.003 mg/L (ppm)	<input type="checkbox"/>
TSP/SPM Filter	40 CFR Part 50	ICP-OES	12 µg/filter	<input type="checkbox"/>
	40 CFR Part 50	Graphite Furnace AA	3.6 µg/filter	<input type="checkbox"/>
Other:				<input type="checkbox"/>
Name of Sampler: Rick Ralston		Signature of Sampler: RRalston		
Sample #	Location	Volume/Area	Date/Time Sampled	
1- 4615R-234-1	Room 3 door frame	white	5/31/2018	
2- 4615-24-2-2	Room 4 drywall	cream	↓	
Client Sample #s		Total # of Samples:		
Relinquished (Client):	Richard Ralston	Date: 5/31/2018	Time: 1:00 pm	
Received (Lab):	Brandice Eslinger	Date: 6/4/18	Time: 1:00 pm	
Comments:				
Bill To: All-Phase Environmental Consultants, Inc, 721 West 9th Street, Pueblo, CO, 81003, US Attention: Brandice Eslinger Phone: 719-240-4690 Email: brandice@allphaseenvironmental.com Purchase Order:				





# EMSL Analytical, Inc.

200 Route 130 North, Cinnaminson, NJ 08077

Phone/Fax: (856) 303-2500 / (856) 786-5974

<http://www.EMSL.com>

[cinnaminsonleadlab@emsl.com](mailto:cinnaminsonleadlab@emsl.com)

EMSL Order:	201805971
CustomerID:	ALLP62
CustomerPO:	
ProjectID:	

Attn: **Richard Ralston**  
**All-Phase Environmental Consultants, Inc**  
**721 West 9th Street**  
**Pueblo, CO**

Phone: (719) 225-6953  
 Fax: (719) 542-2807  
 Received: 06/04/18 10:20 AM  
 Collected:

Project: 18-3066-C70-L-AP-77

## Test Report: Toxicity Characteristic Leachate Procedure (1311/7000B)

<i>Client Sample Description</i>	<i>Lab ID</i>	<i>Collected</i>	<i>Analyzed</i>	<i>Lead Concentration</i>
4615F-T-1	201805971-0001 Site: TCLP		6/7/2018	<0.40 mg/L

Phillip Worby, Lead Laboratory Manager  
or other approved signatory

Samples analyzed by EMSL Analytical, Inc. Cinnaminson, NJ NELAP Certifications: NJ 03036, NY 10872, PA 68-00367

Initial report from 06/07/2018 12:44:51

4015

AP77



EMSL ANALYTICAL, INC.  
LABORATORY PRODUCTS TRAINING  
LABORATORY PRODUCTS TRAINING

### Lead (Pb) Chain of Custody EMSL Order ID (Lab Use Only):

201805971

EMSL Analytical, Inc.  
200 Route 130 North

Cinnaminson, NJ 08077  
PHONE: 1-800-220-3675  
FAX: (856) 786-5974

Company: All-Phase Environmental Consultants, Inc		EMSL-Bill to: <input checked="" type="checkbox"/> Same <input type="checkbox"/> Different <small>If Bill to is Different note instructions in Comments**</small>	
Street: 721 West 9th Street		Third Party Billing requires written authorization from third party	
City: Pueblo	State/Province: CO	Zip/Postal Code: 81003	Country: US
Report To (Name): Richard Ralston		Telephone #: 7192256953	
Email Address: rick@allphaseenvironmental.com		Fax #: 719-542-2807	Purchase Order:
Project Name/Number: 18-3066-C70-L-AP- 177		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email	
U.S. State Samples Taken: CO		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

**Turnaround Time (TAT) Options\* - Please Check**

3 Hour   
  6 Hour   
  24 Hour   
  48 Hour   
  72 Hour   
  96 Hour   
  1 Week   
  2 Week

\*Analysis completed in accordance with EMSL's Terms and Conditions located in the Price Guide

Matrix	Method	Instrument	Reporting Limit	Check
Chips <input type="checkbox"/> % by wt. <input type="checkbox"/> mg/cm <sup>2</sup> <input type="checkbox"/> ppm (mg/kg)	SW846-7000B	Flame Atomic Absorption	0.01%	<input type="checkbox"/>
Air	NIOSH 7082	Flame Atomic Absorption	4 µg/filter	<input type="checkbox"/>
	NIOSH 7105	Graphite Furnace AA	0.03 µg/filter	<input type="checkbox"/>
	NIOSH 7300M/NIOSH 7303	ICP-OES	0.5 µg/filter	<input type="checkbox"/>
Wipe*    ASTM <input type="checkbox"/> non ASTM <input type="checkbox"/> <small>*if no box checked, non-ASTM Wipe assumed</small>	SW846-7000B	Flame Atomic Absorption	10 µg/wipe	<input type="checkbox"/>
	SW846-6010B or C	ICP-OES	1.0 µg/wipe	<input type="checkbox"/>
TCLP	SW846-1311/7000B/SM 3111B	Flame Atomic Absorption	0.4 mg/L (ppm)	<input checked="" type="checkbox"/>
	SW846-1311/SW846-6010B or C	ICP-OES	0.1 mg/L (ppm)	<input type="checkbox"/>
SPLP	SW846-1312/7000B/SM 3111B	Flame Atomic Absorption	0.4 mg/L (ppm)	<input type="checkbox"/>
	SW846-1312/SW846-6010B or C	ICP-OES	0.1 mg/L (ppm)	<input type="checkbox"/>
TTLC	22 CCR App. II, 7000B/7420	Flame Atomic Absorption	40 mg/kg (ppm)	<input type="checkbox"/>
	22 CCR App. II, SW846-6010B or C	ICP-OES	2 mg/kg (ppm)	<input type="checkbox"/>
STLC	22 CCR App. II, 7000B/7420	Flame Atomic Absorption	0.4 mg/L (ppm)	<input type="checkbox"/>
	22 CCR App. II, SW846-6010B or C	ICP-OES	0.1 mg/L (ppm)	<input type="checkbox"/>
Soil	SW846-7000B	Flame Atomic Absorption	40 mg/kg (ppm)	<input type="checkbox"/>
	SW846-6010B or C	ICP-OES	2 mg/kg (ppm)	<input type="checkbox"/>
Wastewater    Unpreserved <input type="checkbox"/> Preserved with HNO <sub>3</sub> pH < 2 <input type="checkbox"/>	SM3111B/SW846-7000B	Flame Atomic Absorption	0.4 mg/L (ppm)	<input type="checkbox"/>
	EPA 200.9	Graphite Furnace AA	0.003 mg/L (ppm)	<input type="checkbox"/>
	EPA 200.7	ICP-OES	0.020 mg/L (ppm)	<input type="checkbox"/>
Drinking Water    Unpreserved <input type="checkbox"/> Preserved with HNO <sub>3</sub> pH < 2 <input type="checkbox"/>	EPA 200.8	ICP-MS	0.001 mg/L (ppm)	<input type="checkbox"/>
	EPA 200.9	Graphite Furnace AA	0.003 mg/L (ppm)	<input type="checkbox"/>
	EPA 200.5	ICP-OES	0.003 mg/L (ppm)	<input type="checkbox"/>
TSP/SPM Filter	40 CFR Part 50	ICP-OES	12 µg/filter	<input type="checkbox"/>
	40 CFR Part 50	Graphite Furnace AA	3.6 µg/filter	<input type="checkbox"/>
Other:				<input type="checkbox"/>

Name of Sampler: *Rick Ralston*      Signature of Sampler: *R. Ralston*

Sample #	Location	Volume/Area	Date/Time Sampled
4015F-T-1	TCLP	Approx 1/2 lb	

Client Sample #s: \_\_\_\_\_ Total # of Samples: 1

Relinquished (Client): <i>R. Ralston</i>	Date: <i>5/31/2018</i>	Time: <i>6:00</i>
Received (Lab): <i>Brandice Eslinger</i>	Date: <i>6/1/18</i>	Time: <i>6:25</i>

Comments:  
Bill To: All-Phase Environmental Consultants, Inc, 721 West 9th Street, Pueblo, CO, 81003, US  
Attention: Brandice Eslinger Phone: 719-240-4690 Email: brandice@allphaseenvironmental.com Purchase Order:

## 6b. Asbestos Abatement Project Design



**Foothills  
Environmental, Inc.**

Industrial Hygiene, Safety & Environmental Services

---

**(Version 1, 10/24/18)**

**ASBESTOS ABATEMENT  
PROJECT DESIGN**

**SINGLE FAMILY RESIDENCE ABATEMENT PROJECT**

**4615 FILLMORE STREET  
DENVER, COLORADO 80216**

**PREPARED FOR:**

**JKS Industries, LLC  
747 Sheridan Blvd., #9A  
Lakewood, Colorado 80214**

October 24, 2018

FEI Project Number: AS18207-9

Prepared By:

Nicolas D. Vasquez, CDPHE Cert #22566  
Foothills Environmental

Foothills Environmental, Inc.  
11099 W. 8<sup>th</sup> Ave.  
Lakewood, Colorado 80215  
Phone: 303-232-2660

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## 1.0 Scope of Work

### 1.1 Materials Identified for Removal

The General Abatement Contractor (GAC) will be performing the removal of asbestos containing material(s) as indicated in the table below. This information was gathered from the inspection report prepared by All-Phase Environmental Consultants (APEC) dated June 27, 2018. A copy of the Inspection and this Project Design will be available onsite during the course of the project. The total amount of actual asbestos containing material to be removed is estimated to be greater than 160 sf/260 lf or the equivalent of a 55 gallon drum.

**The following ACM was identified for removal prior to demolition:**

Sample Name	Sample Location	Lab Results/ Asbestos Type	Detection Method(s)	Condition	Material Description	Material Location	NESHAP Classification	Estimated Quantity (Sq. ft.)
4615F-R3-TD1A	ROOM 3	TEXTURE 3% CHRYSOTILE JOINT COMPOUND 3% CHRYSOTILE	PLM	Good	LIGHT TEXTURED DRYWALL	WALLS AND CEILING OF ROOM 2,3,4,5,6,7 CLOSETS & HALLWAY	RACM	2,182
4615F-R2-TD1B	ROOM 2	TEXTURE 2% CHRYSOTILE	PLM	Good			RACM	
4615F-R4-TD1C	ROOM 4	TEXTURE 3% CHRYSOTILE JOINT COMPOUND 3% CHRYSOTILE	PLM	Good			RACM	
4615F-R4-TD1D	ROOM 4	TEXTURE 2% CHRYSOTILE	PLM	Good			RACM	
4615F-R5-TD1E	ROOM 5	TEXTURE 2% CHRYSOTILE	PLM	Good			RACM	
4615F-H-TD1F	HALLWAY	TEXTURE 2% CHRYSOTILE	PLM	Good			RACM	
4615F-R6-TD1G	ROOM 6	TEXTURE 2% CHRYSOTILE	PLM	Good			RACM	
4615F-C3-TD1H	CLOSET 3	Homogeneous to Samples 4615F-R3-TD1A, 4615F-R2-TD1B, 4615F-R4-TD1C, 4615F-R4-TD1D, 4615F-R5-TD1E, 4615F-H-TD1F & 4615F-R6-TD1G						
4615F-R7-TD1I	ROOM 7							
4615F-R1-TD2A	ROOM 1	TEXTURE 2% CHRYSOTILE	PLM	Good	SPRAY TEXTURED DRYWALL	CEILING OF ROOM 1	RACM	200
4615F-R1-TD2B		TEXTURE <1% CHRYSOTILE JOINT COMPOUND <1% CHRYSOTILE	PLM	Good			RACM	
4615F-R1-TD2C		TEXTURE 2% CHRYSOTILE	PLM	Good			RACM	
ND=Non-Detect PLM=Polarized Light Microscopy NA=Not Applicable RACM=Regulated Asbestos Containing Materials								

Regulatory asbestos abatement notification and permit from the Colorado Department of Public Health and Environment (CDPHE) will be required for this project.

### 1.2 Schedule

The following schedule has been proposed for the project. Phasing and dates are included in Section 1.3, Sequence of Work.

Project Start Date: October 24, 2018

Project Completion Date: November 6, 2018

### 1.3 Sequence of Work

The following phasing plan has been developed for the abatement. This plan was submitted with the permit application which corresponds to the drawing attached in Appendix A.

- **Phase 1** Start: October 24, 2018  
Finish: November 6, 2018

Abatement of textured drywall in all designated areas will be completed in one full containment.

### 1.4 Discussion of Removal Methods

All friable and non-friable asbestos-containing materials that will become friable, as well as asbestos contaminated materials that are located in the work area shall be removed from their installed locations inside a full containment and by utilizing wet removal methods and a combination of handheld tools.

Waste generated during removal will be gathered placed into 2 6ml thick properly labeled disposal bags while wet. Work will be accomplished using CDPHE certified supervisors and workers.

Work completion includes preparation of the work area, pre-clean activities, removal and disposal of all specified ACM from the premises, final cleaning of the work area, final visual inspection, lockdown, and final clearance monitoring. The project will be considered complete when all containments and work areas have passed clearance criteria.

The following types of containments will be used during the project followed by procedures for setup and dismantling:

#### **Full Containments**

The GAC shall conduct abatement activities in accordance with CDPHE Regulation No. 8 in the following mandatory sequence for full containment:

- 1) Install critical barriers (pursuant to subsection III.I, Critical Barrier Installation)
- 2) Establish negative pressure (pursuant to Regulation No. 8 subsection III.J, Air Cleaning and Negative Pressure Requirements)

*Note: The removal of non-ACM building materials and components may only take place after negative air pressure is established in the containment work area(s).*

- 3) Construct the decontamination area (pursuant to subsection III.K, Decontamination Area)
- 4) Pre-clean surfaces (pursuant to subsection III.L, Pre-cleaning of Surfaces)
- 5) Cover fixed objects (pursuant to subsection III.M, Covering Fixed Objects)
- 6) Construct the containment (pursuant to subsection III.N, Containment Components)
- 7) Conduct abatement (pursuant to subsection III.O, Abatement Methods)

- 8) Conduct final visual inspection (pursuant to paragraph III.P.1., Final Visual Inspection)
- 9) Conduct final clearance air monitoring (pursuant to paragraph III.P.3., Final Clearance Air Monitoring)
- 10) Conduct the tear-down (pursuant to subsection III.Q., Tear-down)

All waste from the project will be packaged in approved containers and transferred to an approved landfill for disposal. After successful air clearance of each containment the containment can be removed and all non-reusable containment materials will be packaged for disposal. Only visual clearance will be required to verify complete removal of window glazing compound.

## **2.0 Special Conditions**

### **2.1 Regulatory Notification and Variances**

The General Abatement Contractor, (GAC) will make any required notifications to Federal and State entities regulating their work as required by applicable rules, regulations, and standards. This includes, but is not limited, to the National Emission Standards for Hazardous Air Pollutants (NESHAP) notification [notice provided to the Colorado Department of Public Health and Environment (CDPHE) with permit application]. *The abatement contractor is responsible for quantifying amounts of ACM necessary to properly complete the project.*

### **2.2 Project Manager Requirement**

Colorado Regulation No. 8 requires a Project Manager on all asbestos abatement projects in which the amount of friable ACM to be abated exceeds 1,000 linear feet on pipes, or 3,000 square feet on other surfaces. A Project Manager may be required for this project, unless a waiver is requested and granted by CDPHE.

### **2.3 Facility Occupancy Status**

During abatement activities the building will not be occupied by the former tenants but may be visited by owner personnel as well as other tradesmen.

### **2.4 Site Security**

Entry to the regulated asbestos work area is by permission only to authorized personnel. The perimeter of the work area may be monitored during abatement by a certified Air Monitoring Specialist (AMS). Only asbestos certified/licensed personnel employed by the GAC or federal or state regulatory agency personnel and the AMS will be allowed access to the work area. A logbook will be maintained at the entrance to the work area. Everyone who enters the work area must record name, affiliation, time in and time out for each entry.

### **2.5 Field Changes**

Minor modifications to the project design are allowed. Minor changes include but are not limited to, relocation of negative air machines, decontamination facility and waste load-out. Any modifications to the project design must be approved by the Project Designer before the changes are made.

### **3.0 Project Design**

#### **3.1 Standards and Primacy of Rules**

The following standards will be adopted as they pertain to asbestos abatement. In any instance where adopted standards are in conflict with each other, the most stringent shall apply.

- 1) Colorado Department of Public Health and Environment Regulation #8
- 2) 5CCR 1000-10 Part B asbestos handling, transportation, and storage
- 3) 29 CFR 1926.1101, the OSHA Construction Industry Asbestos Standard
- 4) 40 CFR 61 Subpart M, EPA's NESHAP Asbestos Standard
- 5) NIOSH/OSHA/EPA –“Occupational; Safety & Health Guidance Manual for Hazardous Waste Site Activities”, Section 8-20; Heat Stress and Other Physiological Factors.
- 6) All other applicable laws, rules, and regulations, including but not limited to those relating to:
  - 7 Workers' Compensation Insurance;
  - 8 Liability Insurance
  - 9 All contract specifications and documentation

#### **3.2 Site Access**

The GAC has access to the facility for the purpose of abatement from 6:30 AM to 5:00 PM until project completion which is projected to be 11/6/18.

#### **3.3 Utilities Service**

Access to electrical power, water and sanitary sewer is not available inside the facility. The contractor will provide utility services during the duration of the project. Any temporary utility lines running to the regulated asbestos work area shall be adequately protected from damage and abrasion from vehicle and foot traffic. All waste water shall be filtered to five (5) microns prior to discharge into a sanitary sewer.

GAC will have to provide temporary restrooms located close to the project site at approved locations for the duration of the project (to be placed in a protected area if possible).

#### **3.4 Decontamination Facilities & Load-Out Facilities**

Personnel decontamination facilities shall consist of an Equipment (Dirty) Room, Shower, and a clean room constructed in accordance with Regulation #8 III.K Decontamination Unit. If waste load out is by direct load out, it shall consist of a direct waste loadout configuration that is currently approved by CDPHE (Configuration diagram approved by CDPHE shall be attached to this Project Design if used).

All load-out and disposal procedures shall be in accordance with applicable federal, state, and local regulations and project specifications.

#### **3.5 Critical Barriers**

All critical barriers will consist of a minimum 1 layer of 6mil poly critical barrier on all, openings, and vents.

### 3.6 Negative Pressure Ventilation

The GAC shall maintain a negative pressure differential of -0.02 inches of water in the work areas in accordance with Regulation #8 III.J Air cleaning and Negative Pressure Requirements, until final visual and clearance air monitoring complete. The calculations in the next section take into account at least 1 backup Negative Air Machine (NAM) with HEPA filtration. The contractor will also be using generators for maintaining electrical supply. In the case of generator failure, all workers will leave the work area and seal the containment. A replacement generator will be available onsite or within an hour's time of the project for use in case of failure. Work will resume when negative pressure is restored. If negative pressure is not restored within an hour's time alternate means of electrical supply will be sought. If no supply is available, contractor will contact CDPHE and follow directions for spill response.

### 3.7 Air Exchange Calculations

**AIR CHANGE CALCULATIONS**      *for a 2000 cfm negative air machine (NAM)*

$$\text{AIR CHANGES} = \frac{A}{B \times C} \quad \text{Where: } A = \text{Work area volume in cubic feet (} l \times w \times h \text{)}$$

$B = 15 \text{ minutes}$   
 $C = \text{Estimated rated capacity of NAM (1,500 cfm)}$

#### **Phase 1 – Textured Drywall (Full Containment)**

$$\begin{aligned} A &= 24 \times 30 \times 15 = 10800 \text{ cubic feet} \\ B \times C &= 22,500 \\ \frac{10800}{22,500} &= 0.48 \end{aligned}$$

1 NAM required  
2 NAM's recommended

### 3.8 Containment Construction

Containments for the asbestos removal shall be constructed in accordance with CDPHE Regulation 8 and this project design. Danger signs will be posted at ingress locations, and approaches to locations, where airborne concentrations of asbestos exceed or can reasonably be expected to exceed the PEL. Signs will be posted at a distance sufficiently far from the work area to permit an employee to read the sign and take the necessary protective measures to avoid exposure. Additional signs may need to be posted following construction of workplace containment barriers.

Danger signs will include the following wording:

**DANGER  
ASBESTOS  
CANCER AND LUNG DISEASE HAZARD  
AUTHORIZED PERSONNEL ONLY  
RESPIRATORS AND PROTECTIVE CLOTHING ARE REQUIRED IN THIS AREA**

### **3.9 Set up of work areas**

#### **Full Containment Components**

2"x 4"s wood studding can be used as temporary framing and 4' x 8' x 1/2" plywood sheets to support any exterior containment systems; this may include tie wires also where needed. 1 layer of 10 mil re-enforced poly sheeting will be utilized for any exterior critical barriers, negative air machines will be installed once the poly sheeting is installed. A full 3 stage decontamination unit equipped with hot and cold water, shampoo, disposable towels, and a 2 stage water filtration unit filter all water to 5 micron, prior to being discharged into the sanitary sewer system. Two layers of 4 mil poly sheeting will be installed within the 10 mill critical poly sheeting barriers as exterior walls and ceiling if needed. 2 layers of 6 mill poly sheeting will be placed on floors. View ports will be installed where appropriate with a minimum of 12" x 12" Plexi™ glass and or exterior windows.

Air flow testing utilizing smoke tubes will be performed to validate air flow direction and air exchanges.

#### **Pre-Cleaning Activities**

Pre-cleaning activities will be performed in accordance with CDPHE Regulation 8. All workers performing pre-cleaning must utilize HEPA equipped vacuums and wet methods. Any prepping activities that will contact non-friable ACM, or be within arms' reach of friable ACM must be accomplished by workers utilizing PPE.

### **3.10 Asbestos Removal**

Removal of materials containing asbestos and contaminated with asbestos shall be performed in accordance with the Colorado Department of Public Health and Environment Regulation 8 III, Abatement, Renovation and Demolition Projects and this project design.

### **3.11 Asbestos Spill Response**

In the event of a spill or a breach of the regulated work area containment, follow procedures in Section III.T. of Regulation No. 8, which includes cleaning the area outside the regulated work area. Visible debris shall be cleaned utilizing HEPA vacuuming and wet wiping plus an additional 10 horizontal feet beyond the visible debris. All filters, mop heads, and cloths utilized during clean-up activities shall be disposed of as asbestos contaminated waste in leak tight containers.

The GAC shall have available, equipment and supplies (HEPA filtered vacuum, airless sprayer with amended water, mops, rags, polyethylene sheeting, duct tape, caution tape...) for spill response in the event of accidental spill of materials containing asbestos.

In the event of an asbestos spill outside the work area containment the GAC shall:

- Make appropriate notices based on size of spill.
- Immediately wet the spilled material and surrounding area with the airless sprayer.
- Restrict access to the spill area and post warning signs to prevent entry to the area by persons other than those necessary to respond to the incident.
- Seal all openings between the contaminated and uncontaminated areas as directed by the asbestos consultant. This is to be accomplished by using polyethylene sheeting and tape.
- HEPA vacuum and wet clean all surfaces in the contaminated area.

Following completion of the above, the on sight Air Monitoring Specialist shall conduct a visual assessment of the spill area to confirm adequate cleaning has been accomplished by the GAC.

### **3.12 Asbestos Waste Transportation, Storage, and Disposal**

All ACM waste must be wrapped in two layers of 6 mil polyethylene sheeting or double-bagged in 6 mil polyethylene bags labeled with the appropriate OSHA label for asbestos and must also bear the generator label as required by EPA's 40 CFR 61 Subpart M NESHAP Standard. Containerizing and transport of asbestos wastes shall be in accordance with applicable federal and state regulations.

The existing installed building finishes, hardscaping and landscaping shall be protected from damage by the GAC, until completion of all works.

Safety scaffolding, rubbish skips, access ladders etc. shall be approved by the client and in accordance with the current Health and Safety regulations.

GAC workers will not drag or drop packaged waste. All waste equipment and materials will be hand carried, or transported in wheeled carts to waste transport vehicles.

All packaged asbestos waste shall be directly loaded from the work area onto a 6mil polyethylene lined enclosed truck or dumpster container for disposal. No waste material may be temporarily stored in the building or the work area containment.

#### **Waste Disposal:**

All waste containers shall be transported from the permitted work areas to an approved disposal land fill by the GAC (Denver Aurora Disposal Site).

#### **Waste Transporter:**

By 5280 Waste Solutions.

### **3.13 Final Clean/ Final Visual Inspection Criteria**

All interior surfaces of the work area will be free of visible dust and debris. The work area must pass a final visual inspection by a CDPHE Certified Air Monitoring Specialist (AMS) leaving only critical barriers in place.

### **3.14 Final Air Clearance Monitoring**

Clearance criteria for this containment shall be in accordance with CDPHE Regulation #8, Section III.P

For each work area within the project where the amount of ACM is:	State-Permitted Project in Non-School Building	
	Minimum # of samples to clear each of the following:	
	Work Area	Project
Less than 3 square feet/3 linear feet	1	5
From 3 square feet/3 linear feet up to 32 square feet/50 linear feet/volume equivalent of a 55-gallon drum	2	5
Greater than 32 square feet/50 linear feet/volume equivalent of a 55-gallon drum up to 160 square feet/260 linear feet/volume equivalent of a 55-gallon drum	5	5
Greater than 160 square feet/260 linear feet/volume equivalent of a 55-gallon drum	5	5

Upon notification that clearance monitoring levels are acceptable, the GAC may remove critical barriers and demobilize from the work area. If any samples collected for the final air test exceeds (0.01 fibers per cubic centimeter, 0.01 f/cm<sup>3</sup> for PCM using the NIOSH Method 7400 or 70 structures per square millimeter (70 s/mm<sup>2</sup>) as analyzed by the TEM method in 40 C.F.R. Part 763 Appendix A to Subpart E (EPA 1995) the entire work area shall be re-cleaned immediately upon receipt of air test results.

Any failed abatement work area shall be re-tested and the costs associated for additional Final Clearance Air Monitoring shall be borne by the GAC at no additional cost to the Owner.

### 3.15 Personal Exposure Air Monitoring

The GAC shall be responsible for conducting personal exposure air-monitoring as applicable in accordance with OSHA 29 CFR 1926.1101 Asbestos Construction Standard. Contractor to supply results to personnel and will post results onsite.

### 3.16 Electrical Hazards Control

All electrical power utilized during the project will be on ground fault circuit interrupters (GFCI) whose power source is located outside the work area.

### 3.17 Emergency Egress and Fire Protection

The abatement contractor shall abide by the emergency egress rules for the facility. All contractor personnel shall receive emergency procedure orientation specific to the facility prior to initiation of abatement activities.

### 3.18 Fire Protection Plan

1. No items capable of initiating or sustaining combustion (lighters, matches, torches, etc.) will be allowed in containment.
2. The use of flammable liquids is not permitted.
3. Any electricity utilized must be on Ground Fault Circuit Interrupters (GFCI).
4. A minimum of one, 2A: 20B: C rated fire extinguishers will be maintained on-site. There must be available at least one 2A: 20B: C rated fire extinguisher within a maximum travel distance of 10 feet from any point in the work area.

5. Workers will be trained in the use of fire extinguishers, emergency egress plans, basic fire safety, and emergency reporting procedures prior to work beginning.
6. All emergency exits will be labeled as such with tools available for breaching poly and keys in door locks where necessary.
7. The Contractor must implement an emergency action and fire prevention plan in accordance with 29 CFR 1910.38 Employee emergency plans and fire prevention plans.

### **3.19 Fall Protection**

The GAC shall provide proper fall protection and training for their employees when working above 6 feet of height in accordance with Occupational Safety and Health Administration 29 CFR Part 1926 Subpart M Fall Protection.

### **3.20 Respiratory Protection / PPE**

The GAC shall provide proper respiratory protection for their employees with NIOSH approved HEPA filters during all pre-clean, abatement removal, waste load out procedures and during waste lift operations for effected employees. The GAC shall provide proof of medical fitness to wear respiratory protection and current fit testing documentation for all employees.

### **3.21 Work Area Protection**

The GAC shall repair or replace, to the Owner's satisfaction, any damage caused by the GAC or GAC subcontractors, to existing finishes, landscaping, or other building components.

### **3.22 Additional PPE**

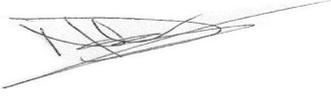
- Hooded Tyvek suits
- Safety Glasses with side shields (exception – not required when wearing a full face respirator).
- Leather Gloves
- Safety toe boots
- Fall Protection as required.
- PPE per MSDS / SDS requirements.

### **3.23 Pre-Abatement Document Submittal**

The GAC shall provide the following submittals to the Owner's Asbestos Competent Person / Safety Department for approval prior to site mobilization.

- ✓ Copies of all worker AHERA / STATE certifications.
- ✓ Copies of all worker asbestos medical evaluations.
- ✓ Copies of all worker respirator fit tests.
- ✓ Copies of MSDS for all chemicals (spray-glue, encapsulant, surfactant etc.) that will be used
- ✓ Asbestos waste receipt / total.

Completed by:

A handwritten signature in black ink, appearing to read 'NDV', is written over a horizontal line.

Nicolas D. Vasquez CDPHE Asbestos Project Designer Certificate # 22566

Foothills Environmental Asbestos Consulting Firm CDPHE Registration # 14925

# Appendix A

## Drawings



## Appendix B

### Certificates



Colorado Department  
of Public Health  
and Environment

## ASBESTOS CONSULTING FIRM

This certifies that

**Foothills Environmental, Inc.**

**Registration No.: ACF - 14925**

has met the registration requirements of 25-7-507, C.R.S. and the Air Quality Control Commission Regulation No. 8, Part B, and is hereby authorized to perform asbestos consulting activities as required under Regulation No 8, Part B, in the state of Colorado.

Issued: January 30, 2018

Expires: January 30, 2019

Authorized APCD Representative

SEAL



Colorado Department  
of Public Health  
and Environment

## ASBESTOS CERTIFICATION\*

This certifies that

**Nicolas Vasquez**

**Certification No.: 22566**

has met the requirements of 25-7-507, C.R.S. and Air Quality Control  
Commission Regulation No. 8, Part B, and is hereby certified by the  
state of Colorado in the following discipline:

**Project Designer\***

**Issued: February 08, 2018**

**Expires: February 08, 2019**

*\* This certificate is valid only with the possession of a  
current Division-approved training course certification  
in the discipline specified above.*

Authorized APCD Representative

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(855) 60.CERTIFY

1775 West 55th Avenue  
Denver, CO 80221,  
United States of America

# CERTIFICATE OF ACHIEVEMENT

This certificate is awarded to:

## NICOLAS VASQUEZ

In recognition of satisfactory completion of the EPA-approved annual asbestos refresher training course under section 206 of the Toxic Substance Control Act (TSCA) and Colorado Regulation No. 8 entitled

### PROJECT DESIGNER

COURSE DATE:	DECEMBER 21, 2017
EXPIRATION DATE:	DECEMBER 21, 2018
COURSE HOURS:	8.0

Verify Credential



*Danaya N. Benedetto*  
Co-Founder & CEO  
Training Program Manager

Credential License ID: 11084750



*Frank Hulce*  
Instructor

CHC Training Certificate No.  
R17-2200-APD-CO

Visit our Website



## 6c. Pre-Demolition Engineering Survey

Pre-Demolition Survey  
And General Demolition Plan  
For  
**4615 Fillmore Street**  
**Denver, CO 80216**



Engineers: David A. Poe, P.E., S.E.  
Glen L. Wilson, E.I.

July 2, 2018  
Project No: 180113

July 2, 2018

Stephen P. Di Nardo  
JKS Industries, LLC  
747 Sheridan Blvd #9A  
Lakewood, CO 80214

Re: 4615 Fillmore Street, Denver, CO 80216  
Pre-Demolition Engineering Survey per OSHA 1926.850(a)  
And General Demolition Plan

Date of Observation: 06/27/18

Dear Mr. Di Nardo:

At the request of JKS Industries (JKS), a representative from Anchor Engineering, Inc. (AEI) performed a site observation at the above-referenced structure on Wednesday, June 27, 2018.

For the purpose of this report, there are two buildings on the property. The front elevation of the residence faces east and is parallel to Fillmore Street. There is a detached garage at the southwest corner of the property adjacent to the alley. At the time of our visit the buildings were vacant.

The purpose of our site visit was twofold:

1. To give an assessment of the current condition of the structures as it relates to structurally related hazards before the proposed demolition activities. OSHA 1926.850 is stated below, along with project specific applicability to the subject building.

- a. ***OSHA 1926.850(a):*** *Prior to permitting employees to start demolition operations, an engineering survey shall be made, by a competent person, of the structure to determine the condition of the framing, floors, and walls, and possibility of unplanned collapse of any portion of the structure. Any adjacent structure where employees may be exposed shall also be similarly checked. The employer shall have in writing evidence that such a survey has been performed.*

**Project Specific Applicability:** The information contained in this report satisfies the requirement of this guideline. The subcontractor shall review this report and make a copy available to all employees on the project at the pre-project meeting, and it shall also be included in the job site books.

- b. ***OSHA 1926.85(b):*** *When employees are required to work within a structure to be demolished which has been damaged by fire, flood, explosion, or other cause, the walls or floor shall be shored or braced.*

**Project Specific Applicability:** 4615 Fillmore Street, Denver, CO 80216 has not been damaged by any fire, flood, explosion, or any other event. Therefore, no shoring or bracing is required.

- c. ***OSHA 1926.850(c):*** *All electric, gas, water, steam, sewer, and other service lines shall be shut off, capped, or otherwise controlled, outside the building line before demolition work is started. In each case, any utility company which is involved shall be notified in advance.*

**Project Specific Applicability:** The contractor and subcontractor will ensure all electric, gas, water, steam, sewer, and other services are to be cut off prior to any work being performed. Contractor shall confirm with KMP through the pre-demolition check list and present the necessary information in the pre-demolition meetings.

- d. **OSHA 1926.850(d):** *If it is necessary to maintain any power, water or other utilities during demolition, such lines shall be temporarily relocated, as necessary, and protected.*

**Project Specific Applicability:** The demolition of 4615 Fillmore Street, Denver, CO 80216 does not require any power, water or other utilities.

- e. **OSHA 1926.850(e):** *It shall also be determined if any type of hazardous chemicals, gases, explosives, flammable materials, or similarly dangerous substances have been used in any pipes, tanks, or other equipment on the property. When the presence of any such substances is apparent or suspected, testing and purging shall be performed and the hazard eliminated before demolition is started.*

**Project Specific Applicability:** All types of hazardous chemicals, gases, explosives, flammable materials, or other dangerous substances shall be removed from the structure prior to demolition as part of the pre cleaning phase during the environmental remediation. All materials are to be documented, manifested, and included in the environmental close out documents.

- f. **OSHA 1926.850(f):** *Where a hazard exists from fragmentation of glass, such hazards shall be removed.*

**Project Specific Applicability:** All hazards from fragmentation of glass shall be removed in the normal course of demolition.

- g. **OSHA 1926.850(g):** *Where a hazard exists to employees falling through wall openings, the opening shall be protected to a height of approximately 42 inches.*

**Project Specific Applicability:** No employees are permitted to enter the structure once demolition begins. Rule applies to interior demolition.

- h. **OSHA 1926.850(h):** *When debris is dropped through holes in the floor without the use of chutes, the area onto which the material is dropped shall be completely enclosed with barricades not less than 42 inches high and not less than 6 feet back from the projected edge of the opening above. Signs, warning of the hazard of falling materials, shall be posted at each level. Removal shall not be permitted in this lower area until debris handling ceases above.*

**Project Specific Applicability:** No employees are permitted to enter the structure once demolition begins. Rule applies to interior demolition.

- i. **OSHA 1926.850(i):** *All floor openings, not used as material drops, shall be covered over with material substantial enough to support the weight of any load which may be imposed. Such material shall be properly secured to prevent its accidental movement.*

**Project Specific Applicability:** The building is a single story structure. Refer to the demolition sequencing section of this report for further information.

**OSHA 1926.850(j):** *Except for the cutting of holes in floors for chutes, holes through which to drop materials, preparation of storage space, and similar necessary preparatory work, the demolition of exterior walls and floor construction shall begin at the top of the structure and proceed downward. Each story of exterior wall and floor construction shall be removed and dropped into the storage space before commencing the removal of exterior walls and floors in the story next below.*

**Project Specific Applicability:** The building is a single story structure. Refer to the demolition sequencing section of this report for further information.

- j. **1926.850(k):** *Employee entrances to multistory structures being demolished shall be completely protected by sidewalk sheds or canopies, or both, providing protection from the face of the building for a minimum of 8 feet. All such canopies shall be at least 2 feet wider than the building entrances or openings (1 foot wider on each side thereof), and shall be capable of sustaining a load of 150 pounds per square foot.*

**Project Specific Applicability:** Not applicable. Building is a single story structure. No employees are permitted to enter the structure once demolition begins.

2. Provide a general outline of the demolition procedures and sequence that is proposed to be used in the demolition of the subject structure. These outlined procedures/sequences are subject to change by AEI and/or the demolition contractor based on the observed response of the structure overall and components thereof during actual demolition operations.

No architectural or structural drawings were provided for our review.

The residence is a single-story residential structure and is assumed to be founded on a spread footings. The structure has a crawlspace with concrete foundation walls. The residence is approximately 32'x33' with the long direction oriented east to west. The wall and roof framing is assumed to be composed of dimension lumber framing. The detached garage is approximately 12'x20' with the long direction oriented east to west. It is a wood-framed structure on a concrete foundation with a slab on grade floor.

#### **Existing Condition Observation**

During our site visit we made visual observations around the building perimeters only. The structures were partially exposed in some areas. All of the existing structural systems that were exposed to view appeared to be in good condition. We saw no evidence of noteworthy structural distress. It is our professional opinion that the possibility of un-planned collapse of any portion of the existing structures is very low. Workers may be allowed in the buildings to prepare them for demolition with such activities as removal of materials or other work that does not involve activities that affect existing structural systems.

#### **Outline of Proposed Demolition Procedures, Equipment, and Sequence**

##### **Equipment**

We anticipate demolition for this structure to be completed with heavy equipment including:

- "Track-hoe" excavators capable of reaching structural elements to be demolished. Excavators may be equipped at times with buckets/grapples, hydraulically actuated demolition hammers or shears, and other custom extensions for demolition and/or holding elements for temporary stability.
- Small skid steer loaders may also be utilized from time to time during demolition

##### **Demolition Sequencing**

###### **General**

After the commencement of demolition with heavy equipment, by necessity, structural systems from this point forth will be destroyed. Demolition should proceed as fast as practical until the structure is demolished in its entirety. The lateral stability of the buildings are provided by the perimeter wood-framed walls.

During demolition operations, care must be taken to protect and prevent damage to any active or live utilities both above and below ground.

During demolition, water will be used to wet down the area that is being demolished prior to starting the demolition. During the demolition process a water spray will be used to minimize the fugitive particulate matter emissions. The ground will be sprayed with water either by water truck or some type of water spray to minimize fugitive particulate emissions from haul trucks and demolition equipment.

**Sequence**

The residence superstructure may be collapsed into the crawlspace starting at either the north or south sides of the building and proceeding thru the length of the building in the north/south direction. The detached garage shall be demolished starting from the west side and proceeding to the east. The alley will require temporary closure during demolition procedures to prevent public endangerment. The south side of the garage is in close proximity to the south property line. The property located to the south is also scheduled for demolition. Once the roof, wall, and floor systems are demolished, the slab on grade and foundations can be removed in any sequence.

**Closing**

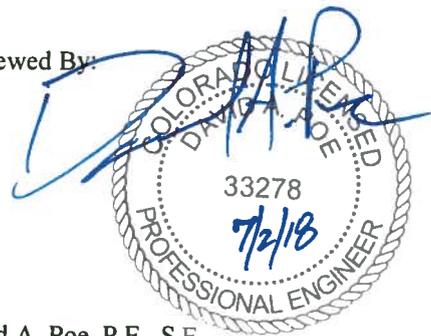
This report constitutes an engineering review and summary of the pre-demolition condition of the structural systems of the subject buildings as well as a general outline of demolition procedures and sequencing. Note that the conclusions drawn are based on visual observations and our expertise and experience with structural engineering of building structures. Unless noted otherwise, no non-destructive or destructive testing of any kind was performed, nor was any formal engineering analysis completed. These procedures/sequences outlined herein are subject to change by AEI and/or the demolition contractor based on the observed response of the structure overall and components thereof during actual demolition operations. Anchor Engineering, Inc. shall be held harmless for damage of any kind to surrounding structures or property or for injury of any kind to any person or persons. The demolition contractor is responsible for jobsite safety. The conclusions presented in this report are based on conditions noted at the time of the observation. Commentary or recommendations regarding environmental issues are beyond the scope of this report. Should questions arise, or if further information is required regarding the content of this report, please contact our office.

Sincerely,  
Anchor Engineering, Inc.



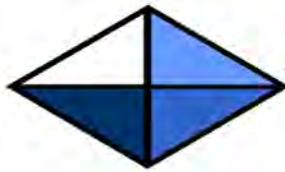
Glen L. Wilson, E.I.  
Design Engineer

Reviewed By:



David A. Poe, P.E., S.E.  
Principal

## 7. Asbestos Clearance Report



# **ALL-PHASE**

## **ENVIRONMENTAL CONSULTANTS, INC.**

November 9, 2018

### **Interior Air Monitoring Clearance (Textured Drywall)**

Re: 4615 Fillmore Street  
Denver, Colorado 80216

To Whom It May Concern:

On, November 8, 2018, Richard L. Ralston, Colorado Certified Asbestos Building Inspector and Colorado Air Monitoring Specialist with All-Phase Environmental Consultants, Inc. (APEC), conducted Air Monitoring clearances at the above referenced Subject Property. A visual inspection and air samples were collected inside the abatement containment to ensure that the asbestos fiber counts are below the regulated standard to guarantee this area is safe to re-occupy.

The Containment Air clearance consisted of five (5) 0.08um sampling cassettes, five (5) 1-16 liter per minute pumps, along with six (4) 20-inch box fans and a one-horse power leave blower used to perform an aggressive clearance of the containment. ***All-Phase Environmental is an approved and certified Colorado Department of Public Health and Environment asbestos laboratory.***

***Microscopic inspection of the above mentioned five samples were conducted in the All Phase Environmental PCM laboratory. This inspection verified that ALL the samples taken were at or below 0.01 fiber per cubic centimeter as required by the Colorado Department of Public Health and Environmental standard for a safe room or area. See Lab analytical results attached to this document.***

**Based on the visual inspection and the analytical results, this area is considered safe to re-occupy.**

APEC will not be held responsible for the mishandling of the information contained herein, and/or any items found after November 8, 2018

Please feel free to call with any questions and or concerns.

Sincerely,

Richard L. Ralston  
Colorado Certified Asbestos Inspector - 4261  
Colorado Certified AMS - 4261





Colorado Department  
of Public Health  
and Environment

## ASBESTOS LABORATORY

This certifies that

**All Phase Environmental Consultants, Inc.**

**Registration No.: AL - 24462**

has met the registration requirements of 25-7-507, C.R.S. and the Air Quality Control Commission Regulation No. 8, Part B, and is hereby authorized to perform asbestos laboratory testing activities, as required by Regulation No 8, Part B, in the state of Colorado.

Issued: April 20, 2018

Expires: April 20, 2019

Authorized APCD Representative

SEAL

## 8. Materials Summary

December 26, 2018

Jenn Bradtmueller  
 Kiewit Infrastructure Co.  
 160 Inverness Drive West, Suite 110  
 Englewood, CO 80112

RE: AP-77 4615 Fillmore St. – Summary of Removed Materials

Dear Jenn,

Below is a summary of the materials removed from 4615 Fillmore St. For more details regarding the location of the Asbestos Containing Materials (ACM) and the asbestos content please refer to the Table 3-1A of the All Phase Environmental SSAR (Page 17).

<b>Material Removed</b>	<b>Quantity</b>
Asbestos Containing Textured Drywall	2382 SF
Regulated Building Materials	2 Lightbulbs and 1 Fridge
Clean Demolition Debris	302,400 lbs
Recycled Concrete	48,600 lbs

If you have any questions or require further information regarding these quantities, please contact me at 303-238-0207.

Sincerely,  
**JKS Industries, LLC**



Jeffrey Knight  
 President

## 9. Waste Manifests

## 9a. Asbestos Waste Manifests



# ASBESTOS NESHAP WASTE SHIPMENT RECORD

	1. Generator ID Number <b>N / A</b>	2. Page 1 of	3. Emergency Response Phone <b>800-424-9300</b>	4. Waste Tracking Number <b>2234863</b>
5. Generator's Name and Mailing Address <b>COLORADO DEPARTMENT OF TRANSPORTATION 747 SHERIDAN BLVD UNIT 9A LAKEWOOD CO 80214</b>		Generator's Project Address (if different than mailing address) <b>AP-77 4615 Fillmore St. Denver CO 80216</b>		
Generator's Phone: <b>(303) 512-5909</b>				
6. Transporter 1: Complete Company Name and Address <b>5280 WASTE SOLUTION 605 W. 62nd</b>				Transporter Phone
7. Transporter 2: Complete Company Name and Address				Transporter Phone
8. Designated Disposal Facility Name and Site Address <b>DENVER ARAPAHOE DISPOSAL 3500 S GUN CLUB RD AURORA CO 80018</b>			Facility's Phone: <b>(720) 876-2620</b>	
9. Waste Shipping Name, Description, & Profile Number	10. Containers		11. Total Quantity	12. Unit Wt./Vol.
	No.	Type		
1. RQ, NA 2212, Asbestos, 9,PG III <b>12677500</b>			<b>28 yd</b>	<b>NONE</b>
2.				
13. Regulatory Agency: <b>Colorado Department of Public Health and Environment 4300 Cherry Creek Drive South Denver, CO 80222-1530</b>			Emergency Notification: <b>CHEMTREC (800) 424-9300 24-hour Toll Free Number</b>	
14. Bill to & Account Number: <b>Customer Acct #: D 14925 Customer Name: JKS INDUSTRIES</b>				
15. Contractor/Generator Certification: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/ placarded, and are in all respects in proper condition for transportation and disposal according to applicable national and state governmental regulations. I hereby certify that the above described waste is not a hazardous waste as defined by federal, state or local regulations and does not contain regulated quantities of PCB's or radioactive materials.				
Generator's/Offorer's Printed/Typed Name <b>MEGAN WOOD</b>		Signature <i>Megan Wood</i>		Month Day Year <b>11 05 18</b>
16. Transporter Acknowledgement of Receipt of Materials				
Transporter 1 Printed/Typed Name <b>JOE UNOFFRE</b>		Signature <i>Joe Unoffre</i>		Month Day Year <b>11 8 18</b>
Transporter 2 Printed/Typed Name		Signature		Month Day Year
17. Special Handling Instructions Soil originating from the above site shall not be used as daily cover or sold as clean fill.				
18. Discrepancy Indication Space:				19. Ticket # <b>3255944</b>
Initials of Person noting discrepancy		Signature		Date
20. Management Method/Location Landfill _____ Monofill <b>6</b> Location:				
21. Designated Disposal Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 18				
Printed/Typed Name <b>Anthony</b>		Signature <i>Anthony</i>		Month Day Year <b>11 8 18</b>

GENERATOR

TRANSPORTER

DESIGNATED FACILITY

## 9b. Regulated Building Materials (RBMs) Waste Manifests

<b>WASTE BILL OF LADING &amp; CERTIFICATE OF RECYCLING</b>		P/U Fees: \$25 \$30 \$40 \$45 \$55	BOL#: 27201
<input checked="" type="checkbox"/> Universal Waste	4' Jumbo ___ 4' Box ___ 8' Jumbo ___ 8' Box ___	\$65 ___ \$75 ___ \$85 ___ \$95 ___ \$105 ___	Shipment Date: 11/6/18
<input type="checkbox"/> TSCA Waste	HID Box ___ Battery Box ___ 6.5 Gallon Pail ___	\$115 ___ \$125 ___ \$135 ___ \$145 ___ \$155 ___	
<input type="checkbox"/> Special Waste	14-G PD ___ 30-G PD ___ 55-G PD ___ CY Bx ___	Labor Charges: \$ ___	Emergency Contact (877) 331-2149 Extension 4
Generator Of Waste:	95-G PD ___ 55-G SD ___ 85-G SD ___ GL Box ___	Off Spec. Charge: \$ ___	
Name:	Bill To: <u>TKS Inc</u>	Name: <u>TKS Industries</u>	
Address:	Address: <u>747 Sheridan Blvd.</u>	Address: <u>747 Sheridan Blvd.</u>	
City, State, Zip:	City, State, Zip: <u>Lakewood Co. 80214</u>	City, State, Zip: <u>Lakewood Co. 80214</u>	
Contact:	Contact: <u>Jeff Knight</u>	Contact: <u>Jeff Knight</u>	
Phone:	Phone: <u>720-462-4410</u>	Phone: <u>720-462-4410</u>	
Fax:	Fax:	Fax:	
PO#	PO#	PO#	
Job#	Job#	Job#	

<b>WASTE BROKERAGE FACILITY:</b>	<b>EPA ID#: COR000231449</b>
<input checked="" type="checkbox"/> R8E, LLC	Destination Facility for Universal Waste
4810 Newport Street	Large Quantity Handler of Universal Waste
Commerce City Colorado 80033-2244	Hazardous Waste Transporter/Transfer Facility
(p) 303-424-4887 (f) 303-424-9193	Used Oil Transporter/Transfer Facility
Email: Mike@R8Enviro.com	US DOT #: 050108 550 051Q HMP-20746
www.R8Enviro.com	US DOT #1781660 CO TSCA - EPA Approved PCB Handler

Container	Waste Common Name	DOT Description	Total Quantity	Unit / Wt. Volume
2 CF	4' & UNDER FLUORESCENT LAMP/S RECYCLING	Non-DOT Regulated (per 49 CFR 173.164(e))		
	5' & OVER FLUORESCENT LAMP/S RECYCLING	Non-DOT Regulated (per 49 CFR 173.164(e))	12	ea
	UTUBE FLUORESCENT LAMP/S RECYCLING	Non-DOT Regulated (per 49 CFR 173.164(e))		
1 CF	CIRCULAR FLUORESCENT LAMP/S RECYCLING	Non-DOT Regulated (per 49 CFR 173.164(e))		
	COMPACT FLUORESCENT LAMP/S RECYCLING	Non-DOT Regulated (per 49 CFR 173.164(e))	49	ea
	HID MERCURY/HALIDE/SODIUM LAMP/S RECYCLING	Non-DOT Regulated (per 49 CFR 173.164(e))	21	ea
	SHIELD/COATED/GROOVED LAMP/S RECYCLING	Non-DOT Regulated (per 49 CFR 173.164(e))		
	INCANDESCENT LAMP/S RECYCLING	Non-DOT Regulated (per 49 CFR 173.164(e))	36	ea
	UV/ARC/IGNITRON LAMP/S RECYCLING	Non-DOT Regulated (per 49 CFR 173.164(e))		
	BROKEN LAMP/S RECYCLING	Non-DOT Regulated (per 49 CFR 173.164(e))		
	CRUSHED FLUORESCENT LAMP/S RECYCLING (processed)	Non-DOT Regulated (per 49 CFR 173.164(e))		
	PCB WASTE RECYCLE/INCINERATION/MICROENCAP	RQ, UN3432, Polychlorinated biphenyls, Solid, 9, PGIII, ERG#171		
	NON-PCB BALLAST RECYCLE/MICROENCAPSULATION	Non-RCRA / Non-DOT Regulated Waste		
	ESCRAP RECYCLING	Non-DOT Regulated	110	P
	MERCURY DEVICE RECYCLING	UN3506, Mercury Contained in Manufactured Articles, 8 (6.1), PGIII, ERG#172		
	LEAD ACID BATTERY RECYCLING	UN2794, Batteries, Wet Filled w/ Acid, 8, PGIII, ERG#154		
	ALKALINE BATTERY RECYCLING	Batteries, Dry, sealed, n.o.s. Specail Provision 130		
	NICKEL (Ni-Cad) BATTERY RECYCLING	Batteries, Dry, sealed, n.o.s. Specail Provision 130		
	LITHIUM METAL BATTERY RECYCLING - DOT 173.185(d)	UN3090, Lithium Batteries, 9, PGII, ERG#138		
	LITHIUM Ion BATTERY RECYCLING - DOT 173.185(d)	UN3480, Lithium Batteries, 9, PGII, ERG#138		
	WASTE OIL RECYCLING	Special Waste Liquid	1	GAZ
	WASTE GLYCOL RECYCLING	Special Waste Liquid		
71 GALLON	WASTE AEROSOLS	UN1950, Aerosols, Flammable, 2.1, ERG#126	71	GAZ
	WASTE LATEX PAINT	Special Waste Liquid		
	LOW RADIATION CONTAINING SMOKE DETECTORS	Special Waste Solid, Nuclear Regulatory Law 10 CFR 32.37		
	FIRE EXTINGUISHER(S)	Special Waste Solid		
	METALS RECYCLING	Special Waste Solid		
	MISCELLANEOUS RECYCLING <u>3 MICROWAVES</u>			
	MISCELLANEOUS RECYCLING <u>6 Large Fridges</u>		6	ea

**Generator Certification:** This is to certify that the above named materials are properly classified, described, packaged, marked, and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation. Unpaid invoices will be assigned to a licensed Collection Agency and subject to Collection Agency Fee's, Attorney's Fee's, Court Costs and Interest.

Signature: \_\_\_\_\_ Title: Operator Print Name: Jesus Casado Date: 11-6-18

Transporter 1 Name: <u>Jesus Casado</u>	Transporter 2 Name: _____
Phone Number: <u>720-245-1685</u>	Phone Number: _____
Signature: _____ Date: <u>11-6</u>	Signature: _____ Date: _____

Receiving, subject to the classification and regulations in effect on the date of issue of the Bill of Lading, the property described above is in apparent good order. Please retain a copy of this document as the "Certification of Recycling" for the items and quantities listed above.

Signature: \_\_\_\_\_ Date: 11/6/18

## 10. Weight Tickets

# 10a. Daily Load Trackers and Associated Truck Tickets



AP-77

**CHACON'S**  
construction & transport



No 50346

2920 W. 73rd Ave  
Westminster, CO 80030  
FAX 303-487-5731  
PH 720-357-1448

**BILL TO:**

**DISPATCHED BY:** J. F. S.

<b>DATE</b> 11/27/15	<b>JOB DESCRIPTION:</b>  Demo
<b>TRUCK #</b> 41525	
<b>TANDEM</b> <input type="checkbox"/> <b>TRAILER</b> <input type="checkbox"/>	
<b>MATERIAL</b> 5000	

	LOADS	UNLOADS
<b>JOB#</b>	1	DADS
<b>LOAD AT</b> 4600 falcone	1	DADS
Waco Blvd		DADS
<b>UNLOAD AT</b>		
DADS		
Waco Blvd		
<b>RATE \$</b>		
<b>HOURLY</b> <input type="checkbox"/> <b>TONMILE</b> <input type="checkbox"/>		
<b>START TIME</b> 10:00		
<b>STOP TIME</b> 5:30 PM		
<b>TOTAL HOURS</b>		

7 1/2 hrs **OWNER OF TRUCK:**

<b>DRIVER'S NAME</b>	<b>AUTHORIZED SIGNATURE</b>
J. F. S.	[Signature]

Net due 30 days from date of this statement. Past due accounts bear interest at 1.5% per month. In the event collection of this account becomes necessary, client agrees to pay all costs and reasonable attorney fees.

# CHACON'S

construction & transport



No. 8071

2920 W. 73rd Ave.  
Westminster, CO 80030  
Fax 303-331-8259  
PH 720-357-1448

**BILL TO:** JKS Const

**DISPATCHED BY:** Chacon Const

**DATE:** 11-27-18 **JOB DESCRIPTION:**

**TRUCK #:** CH 333

**TANDEM**  **TRAILER**

**MATERIAL:**

	LOADS	UNLOADS
<b>JOB#</b>	loads #	Ap 77
<b>LOAD AT</b>	10:30 hrs	Ap 77
4542	1:00 dual	Ap 77
Fillmore st	3:15 dual	Ap 77
CO		
<b>UNLOAD AT</b>		
Dads pit		
<b>RATE \$</b>		
<b>HOURLY</b> <input type="checkbox"/> <b>TONMILE</b> <input type="checkbox"/>		
<b>START TIME</b>		
<b>STOP TIME</b>		
<b>TOTAL HOURS</b>		

7 hrs **OWNER OF TRUCK:**

**DRIVER'S NAME** **AUTHORIZED SIGNATURE**

Toska Castillo [Signature]

Net due 30 days from date of this statement. Past due accounts bear interest at 1.5% per month. In the event collection of this account becomes necessary, client agrees to pay all costs and reasonable attorney fees.

AP 77

**CHACON'S**  
construction & transport



No 50388

2920 W. 73rd Ave  
Westminster, CO 80030  
FAX 303-487-5731  
PH 720-357-1448

BILL TO: J K S

DISPATCHED BY:

DATE 11/27/18	JOB DESCRIPTION: I-70 DEMO
TRUCK # CH 343	
TANDEM <input type="checkbox"/> TRAILER <input checked="" type="checkbox"/>	
MATERIAL DEMO	

	LOADS	UNLOADS
JOB#		
LOAD AT A.P. 77	1 DADS 2 DADS 3 DADS	
UNLOAD AT D.A.D.S		
RATE \$	3 LOADS	
HOURLY <input type="checkbox"/> TONMILE <input type="checkbox"/>		
START TIME 10:00 AM		
STOP TIME 6:00 PM		
TOTAL HOURS		

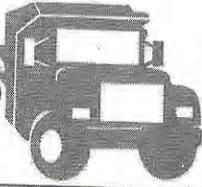
1 hrs OWNER OF TRUCK:

DRIVER'S NAME M.A.C.H.	AUTHORIZED SIGNATURE [Signature]
---------------------------	-------------------------------------

Net due 30 days from date of this statement. Past due accounts bear interest at 1.5% per month. In the event collection of this account becomes necessary, client agrees to pay all costs and reasonable attorney fees.

# CHACON'S

construction & transport



No: 50389

2920 W. 73rd Ave  
Westminster, CO 80030  
FAX 303-487-5731  
PH 720-357-1448

BILL TO: JKS

DISPATCHED BY:

DATE 11/28/18

JOB DESCRIPTION:

TRUCK # CK 343

I-70 DEMO

TANDEM  TRAILER

MATERIAL DEMO

	LOADS	UNLOADS
JOB#	1 Load	TO <del>495212</del>
LOAD AT 4600 Fillmore <sup>S</sup> AD 77	495212	HENDEN <sup>W</sup> PI
UNLOAD AT D.A.D.S		
RATE \$		
HOURLY <input type="checkbox"/> TONMILE <input type="checkbox"/>		
START TIME		
STOP TIME		
TOTAL HOURS 4 hrs		

OWNER OF TRUCK: *MF*

DRIVER'S NAME

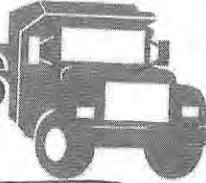
AUTHORIZED SIGNATURE

*M. A. B.*

*Lauren*

Not due 30 days from date of this statement. Past due accounts bear interest at 1.5% per month. In the event collection of this account becomes necessary, client agrees to pay all costs and reasonable attorney fees.

**CHACON'S**  
construction & transport



No 50347

2920 W. 73rd Ave  
Westminster, CO 80030  
FAX 303-487-5731  
PH 720-357-1448

BILL TO:

*J.F.S*

DISPATCHED BY:

*Chacon*

DATE *11/28/18*

JOB DESCRIPTION:

TRUCK # *Ch 575*

*DEMO*

TANDEM  TRAILER

MATERIAL *Demo*

	LOADS	UNLOADS
JOB#		
LOAD AT <i>4600 Filmore</i>		
UNLOAD AT <i>D.A.D.S</i>		
RATE \$		
HOURLY <input type="checkbox"/> TONMILE <input type="checkbox"/>		
START TIME <i>7:00 AM</i>		
STOP TIME <i>3:00 PM</i>		
TOTAL HOURS		
<i>8 hrs</i>		
OWNER OF TRUCK:		

DRIVER'S NAME

*SOBL*

AUTHORIZED SIGNATURE

*Laumbach*

Not due 30 days from date of this statement. Past due accounts bear interest at 2.5% per month. In the event collection of this account becomes necessary, client agrees to pay all costs and reasonable attorney fees.

## 10b. Recycling Weight Tickets

120 85, LLC  
10925 East 120th Ave.

Henderson CO, 80640

Ticket #: 495212  
Date: 11/28/2018 8:44 AM  
Phone: (303) 731-7542

www.hendersonpit.com

Customer: JKSINDUSTR4297  
JKS Industries, LLC  
747 Sheridan BLVD  
Lakewood CO, 80214

Order Number: VASQUEZ  
VASQUEZ & I70  
Loads: 64

CH343 -  
SCALEOP - Scale Operator

Remarks: MIGUEL

Signature: \_\_\_\_\_

Certified  
Weigher: \_\_\_\_\_

Material	Quantity	Price	Material \$	Delivery \$	Misc \$	Tax \$	Line Total \$
END SIDE CLEAN CONCRETE	1.000 EA						

**Weight Information**

Material	Gross	Tare	Net
----------	-------	------	-----

**FOR YOUR OWN SAFETY, YOU MUST BE SUITABLY TRAINED AND EQUIPPED. HENDERSON PIT IS NOT LIABLE FOR INURIES, DAMAGES, OR DEATH CAUSED AT OWN RISK. LOADER ALWAYS HAS THE RIGHT OF WAY. YOU MUST LOCATE THE PIT OPERATOR PRIOR TO ENTRY. DRIVERS ARE RESPONSIBLE FOR THEIR OWN ACTIONS. WE ACCEPT ONLY INERT, NON-ORGANIC, NON-HAZARDOUS MATERIAL.**

## 10c. Waste Weight Tickets



2468544

Denver Arapahoe Disposal  
3500 S Gun Club, PO Box 460397  
Aurora, CO, 80018  
Ph: (720) 876-2620

Original  
Ticket# 3267611

Customer Name	JKSINDUSTRIESLLC	JKS Industri	Carrier	JKS INDUSTRIES	JKS INDUSTRIES
Ticket Date	11/27/2018		Vehicle#	1	Volume
Payment Type	Credit Account		Container		
Manual Ticket#			Driver		
Hauling Ticket#			Check#		
Route			Billing #	0014925	
State Waste Code			Gen EPA ID		
Manifest			Grid		
Destination					
PO					
Profile	( )				
Generator					

	Time	Scale	Operator	Inbound	Gross	
In	11/27/2018 07:05:03	MANUAL WT	aramirez		Tare	2 lb*
Out	11/27/2018 07:05:03		aramirez		Net	1 lb*
			* Manual Weight		Tons	1 lb

Comments 9 loads @ 18cyds per load = 162 cyds total all loads from 11/27/18



PLEASE MAKE SURE YOUR TICKET IS CORRECT BEFORE SIGNING.

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	CDY-CONST DEBRIS - 100	162.00	Yards				

Total Fees  
Total Ticket

Driver Signature



Date: 11-27-18

Ticket#: AP-77

ACCT#:306-14925

JKS INDUSTRIES  
CENTRAL 70 PROJECT

CDY 18 YDS ✓ 25 YDS HIGHSIDES \_\_\_\_\_

DISPOSAL SITE: DADS  
3500 S GUN CLUB RD  
AURORA CO 80018

DRIVER:

Signature: \_\_\_\_\_

9 loads @ 18 cyds = 162 cyds  
TOTAL  
All loads  
11/27/18

Date: 11-27-18

Ticket#: AP-77

ACCT#:306-14925

JKS INDUSTRIES  
CENTRAL 70 PROJECT

CDY 18 YDS ✓ 25 YDS HIGHSIDES \_\_\_\_\_

DISPOSAL SITE: DADS  
3500 S GUN CLUB RD  
AURORA CO 80018

DRIVER:

Signature: \_\_\_\_\_

Date: 11-27-18

Ticket#: Ap 77

ACCT#:306-14925

JKS INDUSTRIES  
CENTRAL 70 PROJECT

CDY 18 YDS \_\_\_\_\_ ✓

25 YDS HIGHSIDES \_\_\_\_\_

DISPOSAL SITE: DADS  
3500 S GUN CLUB RD  
AURORA CO 80018

DRIVER:

Signature: Justin Castello

Date: 11-27-18

Ticket#: Ap-77

ACCT#:306-14925

JKS INDUSTRIES  
CENTRAL 70 PROJECT

CDY 18 YDS \_\_\_\_\_ ✓

25 YDS HIGHSIDES \_\_\_\_\_

DISPOSAL SITE: DADS  
3500 S GUN CLUB RD  
AURORA CO 80018

DRIVER

Signature: Justin Castello

Date: 11-27-18

Ticket#: AP-77

ACCT#:306-14925

JKS INDUSTRIES  
CENTRAL 70 PROJECT

CDY 18 YDS ✓ 25 YDS HIGHSIDES \_\_\_\_\_

DISPOSAL SITE: DADS  
3500 S GUN CLUB RD  
AURORA CO 80018

DRIVER

Signature: M. Pelt

Date: 11-27-18

Ticket#: AP-77

ACCT#:306-14925

JKS INDUSTRIES  
CENTRAL 70 PROJECT

CDY 18 YDS ✓ 25 YDS HIGHSIDES \_\_\_\_\_

DISPOSAL SITE: DADS  
3500 S GUN CLUB RD  
AURORA CO 80018

DRIVER

Signature: Justin Castello

Date: 11-27-18

Ticket#: AP-77

ACCT#:306-14925

JKS INDUSTRIES  
CENTRAL 70 PROJECT

CDY 18 YDS  25 YDS HIGHSIDES

DISPOSAL SITE: DADS  
3500 S GUN CLUB RD  
AURORA CO 80018

DRIVER



Signature: \_\_\_\_\_

Date: 11-27-18

Ticket#: AP-77

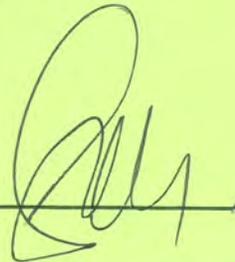
ACCT#:306-14925

JKS INDUSTRIES  
CENTRAL 70 PROJECT

CDY 18 YDS  25 YDS HIGHSIDES

DISPOSAL SITE: DADS  
3500 S GUN CLUB RD  
AURORA CO 80018

DRIVER



Signature: \_\_\_\_\_





Denver Arapahoe Disposal  
 3500 S Gun Club , PO Box 460397  
 Aurora, CO, 80018  
 Ph: (720) 876-2620

Original  
 Ticket# 3268658

24-57

Customer Name JKSINDUSTRIESLLC JKS Industri Carrier JKS INDUSTRIES JKS INDUSTRIES  
 Ticket Date 11/28/2018 Vehicle# 1 Volume  
 Payment Type Credit Account Container  
 Manual Ticket# Driver  
 Hauling Ticket# Check#  
 Route Billing # 0014925  
 State Waste Code Gen EPA ID  
 Manifest Grid  
 Destination  
 PO  
 Profile ()  
 Generator

Time	Scale	Operator	Inbound	Gross	2 lb*
In 11/28/2018 08:58:44	MANUAL WT	aramirez		Tare	1 lb*
Out 11/28/2018 08:58:44		aramirez		Net	1 lb
		* Manual Weight		Tons	

Comments 3 loads x 18yds per load = 54 cyds total from 11/28/18 central 70 project

PLEASE MAKE SURE YOUR TICKET IS CORRECT BEFORE SIGNING.

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1		54.00	Yards				

Total Fees  
 Total Ticket

402WM-N  
 Driver's Signature







## 11. Dump Diversion Summary

**JKS Industries**  
**AP-77: 4615 Fillmore St.**

Descriptions		Dump Diversion / Recycle %								
Phase	Activity	Unit of Measure	# of Yards per Container	# of Containers	Total Number of Yards	Pounds Per Yard **	Total Lbs	Recycled Yes/No	Pounds of Recycle or Dump Diversion	% of Recycle or Dump Diversion
Abatement	Trash Rolloff	Cubic Yard	-	-	-	450.00	-			
Abatement	Asbestos Containers	Cubic Yard	-	-	-	500.00	-			
Demolition	Demolition Construction Debris	Cubic Yard	18	12	216.00	1,400.00	302,400			
Demolition	Concrete Debris	Cubic Yard	12	1	12.00	4,050.00	48,600	x	48,600	13.85%
Demolition	Trees	Cubic Yard	-	-	-	500.00	-	x	-	0.00%
Demolition	Steel	Lbs	-	-	-	-	-	x	-	0.00%
Demolition	Copper	Lbs	-	-	-	-	-	x	-	0.00%
				13	228.00		351,000		48,600	13.85%

STUDY NOTES

- 1 The source material used for the Volume to Weight conversions came from Waste Management web site.
- 2 Conversions ratio's have been modified based on estimated compaction.

## 12. Containment Entry/Exit Log

i e  
Geo  
Thomas

# JKS INDUSTRIES

## CONTAINMENT SIGN-IN & SIGN-OUT SHEET

Job Name:

Job #:

Date:

10 26 18

	NAME	SIGN-IN	SIGN-OUT	SIGN-IN	SIGN-OUT
1.	Alex Martinez Carr	7:00	10:30	12:45	2:30
2.	Alfonso Huety Carr	7:00	10:30	12:45	3:30
3.	Wilmer Andueza	7:00	10:30	12:45	3:30
4.	Michael R. M. M.	7:00	10:30	12:45	3:25
5.	Dennis Major	7:00	10:30	12:45	3:30
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					

# JKS INDUSTRIES

## CONTAINMENT SIGN-IN & SIGN-OUT SHEET

Job Name: Ap 77

Job #: 18-322

Date: 10 29 18

	NAME	SIGN-IN	SIGN-OUT	SIGN-IN	SIGN-OUT
1.	Dennis M	7:00	1:00	1:30	3:30
2.	Geo T	9:03	10:40		
3.	Wilmer A	10:00	1:00	1:30	3:30
4.	Maclir M	10:50	1:00	1:30	3:30
5.	Alex C	10:00	1:00	1:30	3:30
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					

# JKS INDUSTRIES

## CONTAINMENT SIGN-IN & SIGN-OUT SHEET

Job Name:

Job #:

Date: 10 30 18

NAME	SIGN-IN	SIGN-OUT	SIGN-IN	SIGN-OUT
1. ALEX C	7:00	11:30	12:00	3:30
2. MACTIE M	7:00	11:30	12:00	3:30
3. WILLMER A	7:00	11:30	12:00	3:30
4. DENNIS	7:00	11:30	12:00	3:30
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				

# JKS INDUSTRIES

## CONTAINMENT SIGN-IN & SIGN-OUT SHEET

Job Name: A<sub>1</sub> 77

Job #: 18 322

Date: 10 31 18

NAME	SIGN-IN	SIGN-OUT	SIGN-IN	SIGN-OUT
1. MARTIN M	7:10	10:00	11:30	3:30
2. Alex Coronel	7:10	10:00	11:30	3:30
3. Wilmer A	7:10	10:00	11:30	3:30
4. Dennis M	7:10	10:00	11:30	3:30
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				

# JKS INDUSTRIES

## CONTAINMENT SIGN-IN & SIGN-OUT SHEET

Job Name: A7 77

Job #: 18 322

Date: 11 1 18

NAME	SIGN-IN	SIGN-OUT	SIGN-IN	SIGN-OUT
1. Wilmer A	7:00	12:00	12:30	3:30
2. Mactir M	7:00	12:00	12:30	3:30
3. Dennis M	7:00	12:00	12:30	3:30
4. Alex Casanova	7:00	12:00	12:30	3:30
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				

# JKS INDUSTRIES

## CONTAINMENT SIGN-IN & SIGN-OUT SHEET

Job Name: AP 77

Job #: 18 322

Date: 11 2 18

NAME	SIGN-IN	SIGN-OUT	SIGN-IN	SIGN-OUT
1. Dennis M	7:10	12:00	12:30	3:00
2. Martin M	7:10	12:00	12:30	3:00
3. Wilmes A	7:10	12:00	12:30	3:00
4. Alex Gonzalez	7:10	12:00	12:30	3:00
5.				
6.				
7.				
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20.				

## 13. Daily Logs























JKS INDUSTRIES LLC DAILY PROJECT LOG

Job # 18322  
Date 10 30 18

Job Name: \_\_\_\_\_  
Day Tuesday Month 1

Report # 6  
Year 1

Project Manager \_\_\_\_\_

Superintendent Geo

<b>Work Performed Today</b>	Weather: _____
work plan & safety Brief.	Temp. Hi _____ Low _____
Bulk removal of whats left of the walls in the unit. <del>DEBRIS</del> Debris is to be bagged up by lunch. After Reinforce criticals & re-establish pressure	Safety Meeting Topic: Work Force Number
Begin fan tail - vacuuming and pulling nails & screws.	Project Manager Project Supervisor Operators Laborers Tradesmen
D.T.L. - R.F.L.	Other: Other: Other:
Bag out lots of Burritas made.	Materials Used Quantity
Detail clean continues	
END of Day	Material Purchased/Delivered

**Problems - Delays, Safety Issues**

NA

**Subcontractor Progress**

NA

**Inspections**

Equipment Rented Today	Rented From	Insp Chklist Complete?	Equipment	Hours

Visitors (Incl. Subs, Clients, etc)	Time In/Time Out	Activity Onsite



JKS INDUSTRIES LLC DAILY PROJECT LOG

Job # K322  
Date 10/31/18

Job Name: A2 77  
Day Wed Month 1

Report # 7  
Year 1

Project Manager \_\_\_\_\_

Superintendent GEO

<b>Work Performed Today</b>	Weather: _____	
Work plan & safety Brief	Temp. Hi _____ Low _____	
Continue final clean & Detail. Also	Safety Meeting	
Bag out. Change filters for NAM's.	Topic: <u>Deep cuts</u>	
Detailing is mostly vacuuming and make burritos. Bulk removal of walls & Bath room tile flooring.	Work Force	Number
	Project Manager	
	Project Supervisor	1
	Operators	
	Laborers	4
	Tradesmen	
	Other:	
	Other:	
Out to lunch - Return from lunch	Other:	
Bulk removal continues until end of Day.	Materials Used	
	Quantity	
	Material Purchased/Delivered	

**Problems - Delays, Safety Issues**  
 \_\_\_\_\_  
NA

**Subcontractor Progress**  
 \_\_\_\_\_  
NA

**Inspections**  
 \_\_\_\_\_  
NA

Equipment Rented Today	Rented From	Insp Chklist Complete?	Equipment	Hours
<u>NA</u>				

Visitors (Incl. Subs, Clients, etc)	Time In/Time Out	Activity Onsite
<u>NA</u>		











